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# THE MEDICAL JOURNAL OF AUSTRALIA

VOL. I.—36TH YEAR. SYDNEY, SATURDAY, JANUARY 15, 1949. No. 3.

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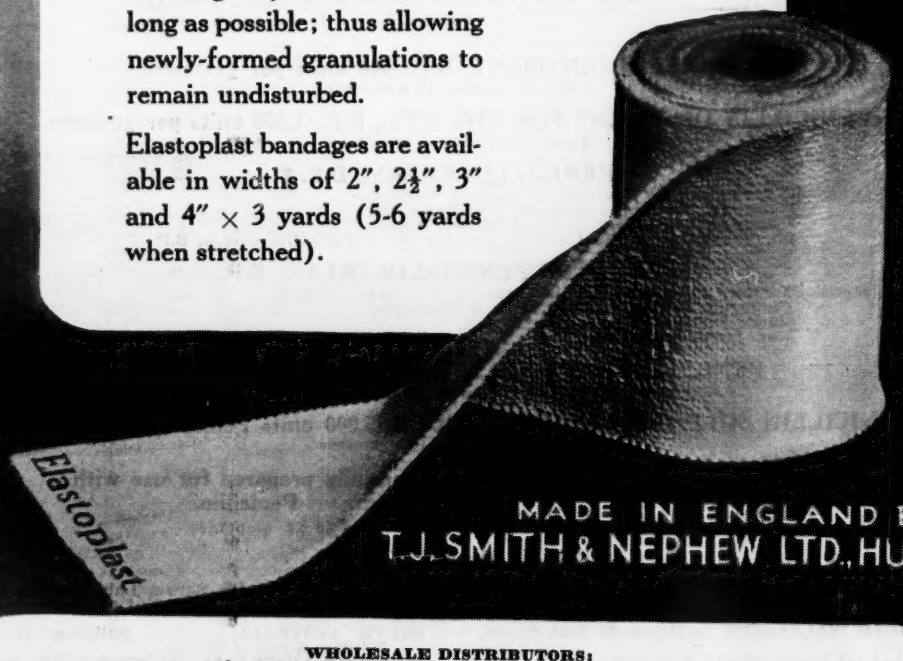


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# THE MEDICAL JOURNAL OF AUSTRALIA

VOL. I.—36TH YEAR. SYDNEY, SATURDAY, JANUARY 15, 1949. No. 3.

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## An Address.[1]

### UNDERGRADUATE MEDICAL EDUCATION.

By MAJOR-GENERAL F. KINGSLEY NORRIS, C.B.E., D.S.O., E.D., K.H.P., M.D.

I SHOULD like firstly to express my sincere gratitude for the enduring pleasure and pride that the past year has given, because of the compliment that you were good enough to pay twelve months ago by electing me your president.

The past year has not been without its difficulties and its problems, and I wish to record my keen appreciation of the loyalty and industry of my council and the splendid support of the members of this Branch.

The chairmanship of the council is a most unenviable position, and I wish to pay a special tribute, which all my councillors will endorse, to our chairman, Dr. H. C. Colville, who has maintained a dignity and a just decision worthy of this high office. Throughout the year the demands on the medical secretary, Dr. C. H. Dickson, and the office staff have been most exacting, but at all times have been discharged with a cheerfulness, a courtesy and an efficiency of which this Branch can be justly proud.

In my opinion the most important medical event during my year as president has been the visit to Australia of Professor J. C. Spence, Professor of Child Health, University of Durham. There is a healthy uneasiness both here and abroad concerning medical education and hospital planning, and during his conferences with the Faculty of Medicine, with the boards of management, the architects and the staffs of the teaching hospitals and during the more personal intimate discussions with smaller groups of both senior and junior graduates, Professor Spence has produced a profound and far-reaching effect.

Those of us who have recently visited other countries will generally admit that the standard of medical practice in Australia is at least as high as elsewhere; but, when we consider the broadening outlook in medicine and consider the training of our medical students in this regard, disquietude is not unreasonable.

It has been stated that undergraduate medical education should be directed to the training of general practitioners. Certainly in any assessment of medical service within a community attention should be directed to general practice rather than to the realms of the specialties. While peaks and prominences may render any area picturesque, it is from the plains that subsistence is provided. But undergraduate medical education, as with any other form of education, should be directed to the training of a person in order that he or she may advance in ability and service by personal experience. Flexner stated that the physician should first of all be an educated man. It is regrettable that our present system isolates the medical student, with the exception of those few living in college, from those of other faculties and to a certain extent from medical students in other phases of the course.

Into whatever field his medical life may wander, a medical student must be basically trained in those principles which should later guide his thoughts and his actions. If these principles are sound and are not violated, whatever superstructure the student, as the result of experience and contemplation, may subsequently build will be safe against the whips and scorns of time.

What are the factors in this training? The student, the teacher and the curriculum.

It is rather like a transfusion from a blood bank—the student the recipient, the teacher the transfusionist, and the curriculum the blood. If the recipient student is too exsanguinated or has no adequate vessels he cannot profit by the procedure; if the transfusionist, in spite of his knowledge, cannot introduce the needle into the vein no

[1] Read at the annual meeting of the Victorian Branch of the British Medical Association on December 1, 1948.

benefit will ensue; and if the blood is unsuitable the result will be poor or even disastrous.

Let us consider each of these factors in turn.

### The Student.

The training of an undergraduate medical student is a process involving considerable expenditure of time and money over at least six years of the life of a young adult. If such expenditure is to be worth while the student must be capable of being trained and of applying his training within his profession. Such capabilities postulate the possession of certain qualities — suitable intellectual capacity, industry and suitable character, with tenacity, reliability, honesty and courage. The development of these and other essential qualities commences in childhood, and the home is of vast importance in medical as in any other form of education.

Admission into our medical schools is contingent on the possession of a certain intellectual ability, as demonstrated by the restricted field of academic examinations. A more worthy inquiry should be concerned with an ability to think logically, to express clearly, to record accurately one's experiences and the experiences of others, and an ability to subject opinions and ideas to critical scrutiny: an inquiry into these various abilities somewhat beyond the present requirements of the entrance examination.

Suitability of character is surely of importance in the responsible fields of the medical profession, but no personal interview is made prior to acceptance of a student into our medical school, nor is a confidential report required from a headmaster or from a headmistress.

In the admission of students to any medical schools consideration should be given also to: (*a*) the optimum number of students that can be adequately trained; (*b*) the applicant : place ratio, the relationship between the number of applicants and the assessed requirements within the community of medical graduates.

No selection committee can be infallible, but adequate consideration should be given to the selection of selectors. Provision should exist for the weeding out of failures in the early part of training on the grounds of failure in intellectual ability or failure in character.

### The Teacher.

At long last it is being realized that the most knowledgeable person may not be able to impart his knowledge. A good teacher must have a wide and sound knowledge of his subject, but also he must have a keen interest in and understanding of his students, their development and their ideas. The appointment of carefully selected supervisors at the various clinical schools is having a definite effect in the improvement of teaching within our hospitals.

Two years ago the Melbourne Permanent Post-Graduate Committee in conjunction with Professor G. S. Browne, Professor of Education in the University of Melbourne, conducted a short course in principles and methods of teaching. This course was voluntary, the lecture-demonstrations were held at night time, and the average attendance, just over 100, was encouraging. On the first occasion the junior teachers were more in evidence, the seniors arriving later when the lights were lowered, but before the course was ended false pride was rejected and professors, seniors and juniors assembled quite freely.

On the final night a series of short lectures, such as those required of medical men, were given. In turn the audience was considered as a class of nurses, of undergraduates and of postgraduates. What certain classes have to tolerate was rather a revelation to those present.

Because a medical man may possess the highest academic qualifications and be appointed to a clinical post in a teaching hospital, he is not necessarily a good teacher. I rather believe that no consideration is given to this quality in making such appointments. Flexner once remarked: "Medicine is learnt, it is not taught." A teacher cannot replace, nor should he attempt to replace, the student's own ability to reason, clinical material, the text-book, the library, the laboratory or the museum; rather should the teacher guide, direct and inspire his students in the proper use of these facilities, never forgetting that he himself was once a student with all the bewilderment that this implies.

### The Curriculum or the Blood Bank.

For some time it has been realized that our present medical curriculum should be reviewed, and there has been appointed an active sub-committee of the Faculty of Medicine to consider this matter. As a result the details of subjects are soon to be modified. Professor Sir Stanton Hicks has stated as his sincere conviction that "if the management of the medical curriculum was based upon the needs of the student for the object to be achieved, a greater impetus to medical efficiency in the community would accrue than could be achieved by the discovery of a cure for cancer".

When we review the details of subjects for medical students as laid down in the "Handbook of the Faculty of Medicine" of our university for this year 1948 there would appear certain grievous anomalies of commission and omission. We have indeed left undone those things which we ought to have done, and we have done those things which we ought not to have done and there is no health in us.

During the first year the student is required to study the natural sciences perhaps rather as sciences in their own right. The student is required to study the laws and behaviour of physical things in natural physiology, in relation to the elements in chemistry, and with regard to living things in biology. That there is any significant relationship between certain of these subjects and the studies and ultimate profession of the student is left largely to his imagination. For example, during the study of sound, is the student aware of the application of this knowledge to the later use of his stethoscope?

During the second and third years the student is occupied with the various ramifications and mountains of facts concerning anatomy and physiology. Biochemistry has been elevated in the student mind almost to a third detached subject.

It is difficult to appreciate the role (in the teaching of anatomy) of the didactic lecture which requires the presence of a student in a formal lecture theatre detached from the dissecting room. What opportunity is presented to a student of anatomy while studying the brachial plexus of seeing and examining a patient with the disability of Erb's palsy? Or does the student during his anatomy course ever have an opportunity of examining patients suffering from the results of anterior poliomyelitis or of studying lymphatic drainage in patients suffering from infections or metastases? Is any anatomy class ever conducted in the surgical wards of the clinical schools? What opportunity is provided the anatomy student of appreciating deep structures in their normal relationships within the body before the removal of all the more superficial tissues demanded by ordinary dissection has prevented this anatomical appreciation? I vividly remember the excellent anatomical demonstration conducted during our second year by Dr. H. Douglas Stephens at the mortuary of the Children's Hospital.

In many other medical centres there is a progressive reduction in the time devoted to academic anatomy with a transference of this time to a later study of the surgical application of the subject. At present the student's first introduction to a patient is a corpse.

The demonstrations of physiological principles given at the clinical schools during the course in physiology are deeply impressive and valuable to the students, and a further development of this excellent method of instruction would be appreciated, and perhaps pathology could be demonstrated more in relation to clinical medicine.

When we come to the later years of the medical course, the period devoted to the study of medicine, surgery, obstetrics and gynæcology, our uneasiness increases. There is laid down an astonishing list of compulsory lectures.

If teaching is satisfactory, students, those wishing to study, will always attend, and by this time those not

intending to study should have been eliminated from the course. The wisdom of any compulsory lectures is open to question.

Various branches of medicine and surgery are taught in special departments and become considered by the student as specialties. As a result the student often becomes involved and confused in the intricacies of procedure which should remain the prerogative of a well-trained post-graduate specialist, and is poorly grounded upon the principles involved and their application within the fields of general medicine and surgery. For instance, why should the understanding of the mental attitude of a patient, which is largely the application of sound common sense and worldly knowledge, be relegated to the realm and monopoly of a group of peculiar "specialists"? The specialties are the tactics of medicine; more appreciation should be given to strategy.

When we examine the formidable list of lectures laid down during the clinical years of our medical course it appears that inadequate consideration has been given to relative values and to integration in the planning of the course.

Forty university lectures are devoted to medicine and forty to surgery—eighty didactic lectures in all. In addition ten university lectures are devoted to radiology. When we remember that the application of radiology is being continually brought before the student during his clinical instruction in medicine and surgery, any worthy purpose of ten didactic lectures devoted to the subject as a specialty is not obvious.

The value of eight didactic lectures on the theory—the theory, mark you—of anæsthesia, is not apparent, especially when the delivery of these lectures demands the presence of the student at the university some distance from an operating theatre.

As the emphasis during our medical course is upon ill health, it is not to be wondered that the student's attitude to his lectures on public health is often one of levity, especially as he is not questioned on this vastly important subject of positive health.

It is exactly one hundred years since Virchow made his prophetic claim that medicine is a social science. Social medicine, as Sir Wilson Jameson has said, is synonymous with public health and is concerned "with the seeking and promotion of those measures other than those concerned with remedial medicine for the protection of the individual and the community against such forces as interfere with full development and maintenance of mental and physical capacity. While the promotion of these services is largely non-medical, the physician should be aware of them and their availability."

At a necropsy demonstration in Washington it is interesting to hear a student indicate, from his own social and environmental investigations, at what point in the patient's life measures might have been introduced to prevent the illness or death and what the patient or the community might have done to maintain health.

Six lectures on venereal diseases increase the unreasonable burden of the "talked at" student, and when it is presumed that practical therapeutics are being taught in the wards, the compulsion to attend sixteen lectures on this subject would seem unnecessary.

The following is a detailed list of lectures laid down in the handbook as those that shall be attended by a medical student.

It is laid down that the student shall attend during fourth year the following:

| | |
|---|---|
| Psychology | 15 lectures |
| General and special pathology | 70 lectures |
| Bacteriology | 40 lectures |
| Obstetrics and gynæcology | 40 lectures |
| *Materia medica* and pharmacology | 14 lectures |
| Total | 179 |

The lectures in obstetrics and gynæcology have no chronological relation to the practical study of these subjects, which is reserved for the later years.

During fifth and sixth years the student has to attend the following:

| | |
|---|---|
| Medicine | 40 lectures |
| Surgery | 40 lectures |
| Surgical anatomy | 16 lectures |
| Therapeutics | 16 lectures |
| Radiology | 10 lectures |
| Diseases of children | 10 lectures |
| Forensic medicine | 20 lectures |
| Medical ethics | 3 lectures |
| Public health | 16 lectures |
| Theory of anæsthesia | 8 lectures |
| Venereal diseases | 6 lectures |
| Total | 185 |

Not including the many clinical lectures in medicine and in surgery from the time he enters a clinical school, the unfortunate student has to attend (according to the faculty handbook) 364 lectures and attend nine so-called special departments: diseases of the skin, diseases of children, gynæcology, anæsthetics, ophthalmology, mental diseases, fevers, diseases of the ear, nose and throat, venereal diseases.

So much for what the unfortunate student has to do. Let us now consider the omissions from his training.

When we remember that the practitioner is concerned with people living under all sorts of conditions in different homes and working in different ways, it is disturbing to realize that the student receives all his instruction either in the university or in the hospital, never in a home or a factory.

It was my practice to insist upon my students going out to the homes of the patients allotted to them in hospital to see for themselves the domestic conditions, the other people living in the home, the types of neighbours and the presence or absence of a garden, before discussing the patient in the ward. I know my students thought this all very silly at the time, but perhaps later the lesson was appreciated.

I know that only when a student is in a position, from personal knowledge, to understand and appreciate the conditions from which the patient came to hospital and to which the patient will return, is that student prepared to discuss the patient with a comprehensive mind.

Fortunately, the majority of our graduates enter general practice and yet at no time during their medical course is a student required to sit at the feet of a general practitioner. In certain of the American medical schools students during their final year are required to serve in full-time association with a general practitioner for a period of three months. What training do our students receive in convalescent homes or domiciliary care? When do our students learn of geriatrics, the care of the aged sick and infirm or the chronically ill? So often these unfortunate human beings are passed by in a ward round with the audible and inhuman comment: "There is nothing of interest here." Few of our students appear to appreciate the distress caused by a wearisome delay and an impersonal approach to many of those unfortunate human beings who come to our hospitals seeking relief and help.

What do our students learn in the actual conduct of a practice? The many simple questioning letters received by our medical secretary from young men entering practice are a commentary on this phase of our training. In one only of our clinical schools are our medical students instructed in those nursing procedures with which they should be practically familiar.

With the vast facilities for scientific research afforded by general or any other form of medical practice, what training do our medical students receive in the scientific method or in the intelligent use of statistics?

A large portion of the student's time at a clinical school is spent in the out-patient department, where as a result of the simultaneous duties of the attendance on the patients and the teaching of students neither of these responsibilities always receives adequate consideration. The teaching-by-example method in the out-patient department, as demonstrated by Professor Spence, is strongly commended. A small number of students are privileged to

be present as observers during the consultations with his patients.

Such is our system when, as frequently happens, a patient is passed from one department to another; continuity in the consideration of the patient from the first attendance at the hospital until discharge is impossible.

Professor Spence repeatedly stressed the importance of the scientific study of the natural course of disease, but this is not possible under our present methods. If a student was allotted to a patient rather than to an honorary medical officer, such study would be possible. Then, and only then, would the student realize that sometimes in the absence of certain procedures often taught him as essential nothing dreadful would necessarily happen. It is becoming increasingly difficult to persuade students that even if penicillin or the "sulpha" drugs are not always available they need not despair.

Unfortunately many students are often presented with a picture of Hygeia as a "pin-up girl" flamboyantly overdressed in pseudo-scientific finery. Recently a letter was received in this office from a young graduate seeking advice as to fees when to quote from his letter he had "X-rayed the patient, done an electrocardiograph and blood-slide, then a clinical examination". Note the order in this statement, and yet can we, as teachers, find this young man guilty?

It is sometimes difficult to persuade a student by the efforts of his own eyes, ears and fingers to obtain essential facts concerning a patient's condition and to retain confidence in his own investigation. However mechanically or chemically perfect the result of a laboratory or a so-called special examination may be, a human intelligence is still required in its interpretation in relation to the patient, and the results of any such investigation should not supersede clinical facts, however these may conflict.

Finally, as Professor Wright has stressed: "Can anyone really respect a profession of the history of which he is ignorant?"

These comments make no attempt to consider minor details; rather do they present broad lines of thought concerning the future planning and correlation of an undergraduate medical education. It would appear that if those features of our present medical course which are considered as undesirable are replaced by those indicated as of more value, the course will not necessarily be prolonged, perhaps the time given to undergraduate study may even be shortened and the value of the first graduate year be developed.

In any integrated planning, such as has been presented, adequate direction, guidance and supervision are essential and the suggestion is offered that the Dean of the Medical School could well devote his full time to such responsibilities. Directly under him would be a sub-clinical director for the early period and clinical director of the later clinical years, each integrating and directing with a staff of teachers, research workers and supervisers the various activities within their respective spheres.

For these various reasons I consider the visit of Professor Spence the most momentous event of this year. With his vast experience, his quiet, authoritative sincerity and delightful humanity Professor Spence came to us in our confusion and directed our thoughts to the "saving of those things which are being violently destroyed or silently passing out of mind".

## OBSERVATIONS ON ONE HUNDRED AND SIX CASES OF RECURRENT INGUINAL HERNIA.

By NORMAN WYNDHAM,

*Sydney.*

ANY surgeon who sees many "repatriation" patients will encounter many recurrent herniæ. I do not know what the recurrence rate is in the Australian army. In the British army it was very high. It may give some the encouraging idea that this is because "the boys" did so much of the army surgery; it may be comforting to others to know that the names of many of our very best surgeons may be found amongst those who figure in the case histories. It certainly provides me with ammunition for would-be critics of this paper. And let me hasten to add that my name appears on the "honour" roll.

In the last two years I have operated on 106 patients with recurrent hernia. I am no nearer the elucidation of this problem, which has interested even the great surgeons for many years past. That I should record my findings was suggested eighteen months ago by C. Craig, of Launceston, whose paper, presented at that time, has since been published (1948).

Statistically this paper has nothing to offer. Accounts of the first operation were available in nearly every case, but details were sometimes inadequate (a charitable adjective). It is important, therefore, to state on what points no information can be given.

1. No information can be given as to the recurrence rate for any particular type of operation. Suffice it to say that all well-known varieties of operation had been performed on these patients in the first place. Amongst New South Wales surgeons the Bassini operation or some modification of it is popular. Approximately 70% of the surgeons who performed the initial operation were New South Welshmen. This may be a source of understandable pleasure to some, and to others merely an indication that "NX" personnel were sent back to their home State for operation.

2. No information can be given as to the influence of the type of suture material on recurrence rate. The fact that in most cases in which the information was obtainable silk had been used means, to me, that silk was the suture material generally employed in Australian military hospitals.

My intention is to record a few findings which may be of no consequence, and to enter into little if any discussion of them. They are as follows.

All patients were given conservative after-treatment of at least seventeen days in bed, and adequate convalescence, with the exception of one Eighth Division soldier, who had been hauled out of bed on the third day and kicked in the groin by a captor.

In only 11 cases had the original wound failed to heal by first intention.

In 10 cases there existed some predisposing cause for recurrence, such as chronic bronchitis.

In 18 cases the tone or development of the abdominal muscles was described as poor at the time of the operation for recurrence.

There were 24 instances of repeated recurrences. It was interesting to find an indirect sac in nearly all of these.

In 10 instances two inguinal herniæ were operated on at one operation. In four of these cases there were recurrences on both sides. I have no idea, of course, of the number of bilateral herniorrhaphies performed without recurrence.

In 18 cases it was stated that the original operation had been a simple excision of the sac. In 66 it was either stated that the original operation had included some type of repair of the canal or such a procedure was assumed from the state of the canal at the subsequent operation. In 22 instances the matter was uncertain. It was clear that a Bassini type of repair might leave no obvious trace behind it by which one could be certain that the original operation had not been a herniotomy. It was just as clear that the internal oblique muscle and conjoined tendon might form a firm union with the inguinal ligament, sometimes densely fibrous and occasionally muscular, and still not prevent the occurrence of hernia. Between these two extremes were found many modifications varying from aponeurotic sheets to a few flimsy strands.

The recurrence was indirect in all except 23 cases. Of these, seven herniæ had recurred at the lateral end of the inguinal canal to assume a subcutaneous position. Two of the direct herniæ were of the funicular type and were probably not true recurrences.

The series provided no information as to the possible presence of a direct hernia at the time of the original

operation as well as the indirect hernia. In six of these cases the original hernia was direct. I could find no instance in which herniotomy was followed by direct hernia. It might with some justification be inferred that operation of the Bassini type was more likely to be followed by a direct recurrent hernia than was a simple excision of the sac. Yet it must be remembered that we do not know how many herniorrhaphies were performed to give 23 direct recurrences; nor do we know whether it is correct to state that the inguinal canals were repaired because conditions likely to initiate recurrent hernia were present at the time, and that simple excisions were performed only in the presence of a functionally normal canal.

In many instances the scar where the sac had been ligated originally was obvious. In 13 cases omentum was strangulated at this point.

In 17 cases a sliding hernia was present, being approximately as frequent on the right as on the left side.

A defect in the *fascia transversalis* was always obvious.

The age groups of the patients at the time of the operations performed by me were as follows: twenty to twenty-five years, 24 patients; twenty-six to thirty years, 20 patients; thirty-one to thirty-five years, 13 patients; thirty-six to forty years, 15 patients; forty-one to forty-five years, 18 patients; forty-six to fifty years, nine patients; fifty-one to fifty-five years, four patients; fifty-six to sixty years, two patients; sixty-one to sixty-five years, one patient; total 106 patients. I do not think that this information is of much value.

The time which elapsed between the original operation and the first recurrence varied as follows: six months and less, 21 cases; between six and twelve months, 24 cases; between one and two years, 35 cases; between two and three years, nine cases; between three and four years, ten cases; over four years, seven cases; total, 106 cases.

This gives no information except that the second world war finished only a short time ago and that there is plenty of time for more recurrences to require operation. Very few men—I think no more than six—have been advised by me to wear a truss for their recurrent hernia, operation being refused.

### Acknowledgements.

I should like to pay tribute to the keenness and patience of Dr. Maxwell, Dr. Segal, Dr. Conacher and Dr. Grainger, who assisted me in these operations.

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## MAGNESIUM IN DYSMENORRHŒA.[1]

By W. J. RAWLINGS, M.R.C.O.G.,
*Melbourne.*

DYSMENORRHŒA readily falls into the category of difficult gynæcological problems, for the basis is pain, and pain is still a vague personal equation, an entity which cannot be measured scientifically in units comparable to decibels, kilograms or megacycles.

The psychological factor is important in dysmenorrhœa. Its effect may commence even before the first period, according to whether there has been any instruction in what to expect and the young girl's reaction to this; or whether in the absence of enlightenment there is the fright and shock of the pubertal bleeding. The post-menarchial era is one of suggestion as prompted by a mother's continual inquiries of "Have you had your pain this month", or, if a girl is off colour for any reason, "Oh, its probably your period coming on". The girl's outlook is next: is the menstrual flow something dirty, evil, filthy—a discharge of foulness from the body? Or is it a welcome visitor, maybe even an unexpected pleasure. The constant harrowing of future social engagements occurs when by anticipating dates a girl discovers it will be during the week-end holiday at the beach. Again, in the shop or office, there is the envy of the girl who gets a "lie down", a rest, or is even sent home when work is piling up.

So the patient's mental outlook must be studied, as, for example, in some cases of sterility in which dysmenorrhœa did not commence until after marriage and constitutes what I call "disappointment dysmenorrhœa".

In all cases one should try to find the patient's idea of why menstruation occurs, and if necessary correct or explain the rhythmic cycle in simple terms.

### Causation of Primary Dysmenorrhœa.

Many theories of causation are advanced from psychological to glandular hormonal upsets. Whatever the basic factor, pain is the result, and pain in an internal muscular organ must be due to a physiological stimulus, that is, either overstretching of a muscle or excessive contraction of a muscle of the type of tetanic spasm or of cramp. This is seen in cases of labour in the first stage when the patient with the slow or non-dilating cervix will complain of a constant pain or a constant backache possibly due to the tightly contracting cervix; to this are superadded the ineffectual contractions of the body of the uterus. This incoordination was strikingly demonstrated in two cases of labour in which a thinned-out cervix but a firm undilating os accompanied the above types of pain. As a result of speaking to an old practitioner, I painted the os of the cervix with 10% cocaine solution—with dramatic dilatation of the os and rapid descent of the presenting part. As there are cases of pylorospasm or incoordination of the gastric musculature, which Still so pertinently describes as "the stuttering stomach", so presumably we have in some instances of so-called spasmodic dysmenorrhœa an incoordination of the rhythmic contractions of the corpus of the uterus and the relaxation of the cervical musculature.

Since the above with written an abstract has appeared of an article by J. Kries in the *French Review of Gynæcology and Obstetrics* which points in the same direction. He suggests that contraction of the cervix induces and is followed by contraction of the corpus in the normal rhythm.

> These contractions of the cervix may account for sacro-lumbar pains in labour which are continuous and occur apart from uterine contractions ("pains"). Sacro-lumbar pain due to contraction of the cervix is the first type of pain to yield to anti-spasmodics. On the other hand, sacro-lumbar pain coinciding with contraction of the body of the uterus is due to a conflict between cervical resistance and body contraction and is more difficult to overcome by sedation.

### Magnesium and the Uterus.

Abarbanel in the *American Journal of Obstetrics and Gynecology*, April, 1945, gives an excellent summary of previous work on magnesium in relation to the uterus and also the results of clinical trial of its use in cases of labour.

He quotes Van Dyke and Hastings as showing the following effect of posterior pituitary extract on the isolated guinea-pig uterus: (*a*) in the absence of magnesium ions, a decreased response; (*b*) with a concentration of one millimol, an optimal response; (*c*) with a concentration of three millimols, a depression in the response.

Further laboratory work has confirmed that small concentrations of magnesium decrease the response, fair concentrations enhance it and high concentrations retard it. Also laboratory work has shown that a small amount of magnesium will abolish tetanic spasm, but it will not

[1] Read at a meeting of the Victorian Branch of the Royal College of Obstetricians and Gynæcologists held on March 8, 1948, in conjunction with the Royal Melbourne Hospital centenary celebrations.

abolish rhythmic uterine contractions and even seems to enhance them.

Hence Professor Reynolds has suggested that theoretically the magnesium ion should prove an ideal uterine sedative.

Abarbanel then worked on cases of induced uterine tetany in labour in which the above work was confirmed by the intravenous administration of magnesium gluconate. The alternative use of calcium gluconate given intravenously proved the definite value of the magnesium ion. One short paragraph states that spasmodic dysmenorrhœa is relieved for two to eight hours by ten millilitres of 20% magnesium gluconate solution given intravenously or by one gramme given four times daily two weeks before menstruation.

This section stimulated me, but magnesium gluconate was obtained only with difficulty. Magnesium gluconate was chosen because apparently the dose can be "pushed" without the side effects associated with magnesium sulphate, and twenty grains (1·3 grammes) in half an ounce of water form almost a saturated solution.

For preliminary medication, I chose twenty grains (1·3 grammes) given once daily, commencing fourteen days before the expected date and up to but not including the menses. In the light of results, this dosage was decreased to seven days, then four days before the expected date. Further, in menstrual as opposed to premenstrual dysmenorrhœa, I found the advisability of continuing the dosage for two to four days of the period itself with beneficial results.

### Results of Treatment.

The series of cases is small, totalling only twenty-nine. Twenty-one were obtained in private practice and eight in an experiment with factory workers. The results are compiled from my clinical records and from replies to *questionnaires* sent to all at the end of last year.

All patients treated were apparently suffering from primary dysmenorrhœa—that is, no obvious pathological conditions were present to complicate the issue. In two cases dysmenorrhœa commenced after simple appendicectomy, though there was no apparent connecting factor. Simple retroversion of the uterus I do not regard as a pathological condition unless other symptoms are present, though the varicosity or otherwise of the broad ligament veins is impossible to estimate from examination *per rectum* of the virgin.

Surgical procedures were undertaken in only two cases in which atempts to pass the small-size Hegar dilators (numbers 2, 3 or 4) produced a typical dysmenorrhœa spasm. Pre-sacral neurectomy I have not performed now for about fifteen years; the condition of one patient (Case XVI) when seen during an early spasm of dysmenorrhœa seemed of sufficient severity to warrant it.

Patients have been divided into those suffering from premenstrual and menstrual dysmenorrhœa. Where both conditions were present they have been included under both headings, hence the occasional discrepancy of totals.

#### *Premenstrual Dysmenorrhœa.*

In the premenstrual series there were fifteen private patients, of whom thirteen obtained relief; in two cases failure occurred over three periods (Table I). One patient whose treatment was a failure did not continue; the other since receiving the *questionnaire* has requested that a further supply of medicine be forwarded.

Of the thirteen patients relieved, five are apparently cured, having suffered no discomfort during observation periods of six to twelve months. The details of their respective symptoms are: a "drawn down" feeling in the abdomen, backache and right-sided ache, a dragging ache from the lumbar region to the right groin, tired backache, and cramps similar to "ice cream ache".

The remaining eight patients find recurrence of symptoms to a lesser degree on failing to take the magnesium mixture, but they are again relieved by its resumption. In one case in which the interval is still irregular the patient finds it difficult to anticipate the period. Among the factory workers, there were four patients, all of whom obtained immediate relief, though one patient promptly became pregnant, and another had two normal menses, and then a recurrence of dysmenorrhœa with the third period, but I was unable to follow her condition as she left her employment.

These cases in general demonstrated the more dramatic results, the patients volunteering such statements as: "I did not know my period had started", or: "With no warning I was caught unprepared".

TABLE I.
*Private Patients with Premenstrual Dysmenorrhœa.*

| Type of Pain. | Total Number of Patients. | Results of Treatment. | | |
|---|---|---|---|---|
| | | Relief. | Failure. | No Recurrence. |
| Colicky .. .. .. | 6 | 6 | — | 1 |
| Backache .. .. .. | 6 | 5 | 1 | 3 |
| Drawn feeling .. .. | 1 | 1 | — | 1 |
| Swollen abdomen .. .. | 1 | — | 1 | — |
| "Tension" .. .. .. | 1 | 1 | — | — |

In several instances the premenstrual discomfort was relieved, but replaced by menstrual discomfort, which seemed due to the stopping of the mixture with the onset of the flow. This was proved correct, for relief was obtained by continuance of the mixture during the period.

In this series Case XVII is of special interest.

CASE XVII.—This patient, who was aged twenty-four years, had from the age of seventeen years suffered gradual onset of suprapubic pain and biliousness for three days relieved by onset of the menstrual flow. She had undergone dilatation of the cervix in Leeds in 1942 with relief for about one to two years. The condition had become gradually worse over the last three to four years. She was instructed to take magnesium gluconate for seven days before the expected date of onset of menstruation. At her next period in February, 1947, no premenstrual pain occurred. The patient thought that she was completely relieved, but some hours after the onset of the flow recurrence of suprapubic discomfort occurred. In March there was again no premenstrual pain, but menstrual discomfort was felt for thirty-six hours, at first colicky, then waxing and waning. Dilatation of the cervix with Hegar's numbers 3 and 4 dilators produced exactly the same type of discomfort as in the dysmenorrhœa. In April, after ten days' treatment with magnesium gluconate, on the day before the menses were expected, the cervix was dilated with a number 4 Hegar's dilator without discomfort. In May there was no pain. In June a slight recurrence occurred. In July dilatation two days before the period produced rhythmical spasms typical of dysmenorrhœa. The menses occurred two days later with no discomforting pain.

In August the patient became pregnant and has not been delivered yet.

CASE VI.—A patient, aged twenty-five years, had had dysmenorrhœa since the menarche for one day before and for two days of each period. The pain was of colicky type associated with the passage of clots of blood. She had been given tablets and injections before the periods without relief and in the previous year had had dilatation of the cervix and curettage of the uterus for both dysmenorrhœa and sterility. In August, 1946, the passage of a number 2 dilator was difficult, and a number 3 dilator produced painful spasms similar to dysmenorrhœa. In September, under general anæsthesia, the Rubin's gas insufflation of the tubes was carried out and their patency verified. In October the menses were painless, apparently as a result of previous dilatation of the cervix. In November there was a recurrence of dysmenorrhœa, and the patient was instructed to take magnesium gluconate for ten days before the next period. In December she was relieved of all pain, but was still passing clots. The patient then became pregnant and in labour suffered no departure from normal during the first stage of cervical dilatation. In November, 1947, she reported that with the first post-puerperal menses she suffered two days of colicky premenstrual pain. In February, 1948, she reported that since taking magnesium gluconate she had had three painless periods.

These two cases are the only ones in which I used a dilator which, as stated, produced the typical dysmenor-

rhœa, thus showing that the muscular contractions of the cervix produced the discomfort. As most of the patients were virgins, I had forgotten to follow up this procedure, but I must investigate it in further cases.

In another case on similar lines the patient gave a history of a prolonged first stage in labour, which her doctor assured her was due to poor muscular contractions, no other cause being evident.

Hence, in this type of case, I suspect we have a loss of polarity of the uterus—the cervix fails to dilate as the uterus contracts. The magnesium ion by overcoming the spasm allows relaxation and relief. The transference of pain from the premenstrual to the menstrual stage was possibly due to withdrawal of magnesium in the early cases at the onset of the flow.

CASE XIX.—Another patient treated was a girl, aged seventeen years, who in November, 1946, complained of premenstrual dysmenorrhœa up to one week previously. Abdominal cramps occurred "on and off" which were relieved by onset of the flow. In December there were no troubles at the period. In January, 1947, no premenstrual pain occurred, but crampy pain in the abdomen and legs was present for the first day of the flow. In February there was no premenstrual pain, but menstrual pain was present. The patient had to come home from work; she experienced only one cramp, but suffered from general discomfort. In March the period was normal. In April there was again no abnormality. The patient went for a walk on the first day, a thing which she had not been able to do previously.

In May there was no pain whatever; she felt so well that she went to a dance. In the *questionnaire* she reported that by taking occasional doses she had remained free of trouble for twelve months.

CASE II.—A girl, aged twenty years, in whom the menarche had occurred at the age of eleven years, complained in January, 1947, of premenstrual suprapubic colicky pains before the onset of flow; one or several might occur before the onset and she liked to lie down. She now reports that over a period of twelve months she has obtained relief of colicky pains by taking the mixture for three or four days beforehand; she does not have to lie down. Sometimes she has a few colicky pains on the first day, but by taking two doses on the first day she is relieved.

CASE I.—A patient, aged twenty-three years, stated that the menarche had occurred at the age of fourteen years, since when she had always had a "drawn down" feeling in the abdomen on the day before the onset of the flow. She took magnesium gluconate and reported that she "was caught unprepared—did not know period was starting". This continued for three months, and now she has not had a recurrence for seven months.

### *Menstrual Dysmenorrhœa.*

Of those with menstrual discomfort, that is, discomfort following the onset of the period, there were twelve private patients and six factory patients (Table II).

TABLE II.
*Patients with Menstrual Discomfort.*

| Type of Pain. | Total Number of Patients. | Results of Treatment. | | |
|---|---|---|---|---|
| | | Relief. | Failure. | No Recurrence. |
| Colicky abdominal pain .. | 8 | 7 | 1 (doubtful) | 1 |
| Constant ache in abdomen.. | 8 | 7 (5 complete, 2 partial) | 1 | 3 |
| Backache .. .. .. | 2 | 2 | — | 1 |

In the one failure marked "doubtful" the patient experienced definite improvement with the first and second periods, but recurrence occurred with the third; this could not be followed up as she left her employment.

In the other failure the patient showed no improvement over three periods; after consultation with her medical attendant she was discarded as being uncooperative, but her result is classed as failure.

In the two cases of relief recorded as "partial", the patients report on the *questionnaire* that they do not now get complete comfort, but are much improved from their previous condition. Possibly bigger doses will be required.

In the series of private patients, five had no recurrence of symptoms whilst under observation. Their respective symptoms were bearing down pain, backache, suprapubic nagging ache, severe colicky pain followed by colicky spasms and continual lower abdominal ache for four or five hours which necessitated bed for one day. As will be seen, their symptoms do not fall into one particular group.

Of the remaining seven private patients, one is pregnant, one suffered recurrence of symptoms following pregnancy and the remainder have recurrence of symptoms. These patients have been watched for between twelve and eighteen months and, either in cooperation or of their own accord, have developed a routine; this approximates to the taking of the mixture for three to four months with relief of symptoms which is maintained for a further two to three months; then when symptoms recur they again resort to the mixture for two to four months, so almost developing a cycle.

CASE X.—A patient, aged twenty-two years, whose menarche occurred at the age of eleven years, complained in June, 1946, of the onset one hour after the menstrual flow commenced of a "vice-like" gripping pain in the umbilical region which continued for twenty-four to thirty-six hours; it was always the same type of pain and never colicky. Two years previously she had undergone dilatation of the cervix without effect. Treatment with magnesium gluconate was commenced. At the first subsequent period dysmenorrhœa was similar, but of shorter duration. At the second period it was much less severe and at the third period no dysmenorrhœa occurred at all. In the *questionnaire* she reports that definite relief of pain after onset of flow was experienced for six months; then she ceased taking the mixture for three months with a recurrence of dysmenorrhœa, but reports that she now takes the mixture once daily for two or three days before and during the period with relief.

CASE XVI.—A patient, who experienced fright with the onset of her first period at the age of eleven years, had regular menses at first, but then they became irregular, occurring at intervals of from five to six weeks. She complained in February, 1947, of "tired" lumbar backache for a day and heavy aching legs for a few hours before the onset of menstruation and then of continuous pain in the lower part of the abdomen lasting four or five hours. She had to stop work and go to bed. She was a good "sports girl", enjoying basketball, tennis and swimming. At the next menses after treatment commenced there was less dysmenorrhœa. In March she had severe dysmenorrhœa while in bed one afternoon and I noted in my clinical record that she might require pre-sacral neurectomy. In April the dysmenorrhœa was not nearly so severe, the interval between periods being twenty-eight days. In May the dysmenorrhœa was severe before the flow, being relieved by the flow. In June she went to bed, but had no trouble. In July she knew that her menses were about to commence, but experienced no actual discomfort. This patient reports that she now stays at work, continuing to take medicine.

CASE V.—A patient, aged thirty-two years, had developed no pubic hair until the age of nineteen years and at the baths felt that she was different from the other girls. Then the menarche occurred, the menses being irregular at first and later occurring at four to five weeks' intervals. With the onset of the flow there was a constant dragging ache in the lower part of the abdomen with a feeling of loss of power in the legs. She was treated by several doctors with tablets and injections. In June, 1946, she received only five doses of magnesium gluconate, as the menses were earlier than usual. The dysmenorrhœa was much less, but she still had tired legs. In July the menses started on the date expected and no pain was experienced at all. The patient commented that she "would be very satisfied if all periods were the same". In August the first two days were better than usual, but on the third day pain was severe and she was unable to work. In September and October there were no pains at all in the abdomen. In November and December a dummy mixture was given, but no pain occurred. The menses were still regular. In January the patient felt no pain. She had "gastric flu", but otherwise felt no abnormality.

CASE XIV.—In December, 1946, a patient whose menarche had occurred at the age of twelve and a half years, complained that during menstruation the onset of flow was

painless, but then a suprapubic nagging ache developed which eased, but was still present till the cessation of the menses. Magnesium gluconate was prescribed. In January, 1947, her condition was improved, but not completely relieved. In February there was less discomfort and she felt considerably improved. In March she was "almost comfortable". Now she reports that over a period of fourteen months she has found relief by taking magnesium gluconate for three or four months, then no medicine for three or four months; by this time pain recurs and she again takes medicine for three or four months.

CASE XI.—A girl, aged eighteen years, whose menarche occurred at the age of fourteen years, had suffered from dysmenorrhœa, at first irregular, but increasing in severity for the twelve months prior to treatment. Nervy twitchings and irritability were experienced for some days before the menses; with the onset of the menses, a constant ache developed with throbbing and colicky spasms from the suprapubic region to both groins. It was always present on the first day, but might ease on the second day and perhaps recur on the third day. It was relieved completely at the next period after treatment commenced and this was maintained, but when reduced dosage was given a recurrence of inconvenience took place. She has since been advised to double the dose during menses.

### Dosage.

As stated at first magnesium gluconate was given in doses of twenty grains (1·3 grammes) once a day for ten to fourteen days before the expected date, being ceased with the onset of the menses. If improvement was obtained and maintained the period of administration was reduced to seven or four days before the onset. This proved effective for premenstrual distress, but not for menstrual distress, so the period of administration was altered to include the first three days of the period.

Now my general routine is as follows. For premenstrual distress I commence treatment seven days before the onset and continue it during the first day. For menstrual distress treatment is given for four days before and for the first three days of the period depending on the usual duration of symptoms. If relief is not quickly attained, then two or three doses per day are prescribed.

It was interesting to note that in several cases of premenstrual pain this was relieved, but the pain became menstrual when the mixture was taken only until menses commenced. Now by taking the mixture during the period this is relieved.

### Mode of Action of Magnesium.

The magnesium content of plasma was investigated by Hirschfelder in 1934. The normal range is from 1·8 to 2·75 milligrammes per 100 millilitres, but in muscle cells the content is much higher, averaging 21 milligrammes *per centum*. The daily requirement is 0·6 gramme; the ordinary diet contains 0·19 to 1·2 grammes. Rats fed on diets with a low magnesium content show hyperexcitability, tetany, convulsions and collapse. Absorption of magnesium given orally is mainly from the small intestine and takes place more readily from concentrated than from dilute solutions.

The effects of parenteral injection of magnesium and its use on isolated organs in baths seem generally established. Parenteral administration results in two actions: as a central respiratory depressant, and peripherally as a muscular and nervous depressant with a curare-like action. Advantage is taken of this latter action in the symptomatic treatment of tetanus and eclampsia.

The difficulty seems to be to raise the plasma level by oral administration. Sollman states:

> If a single dose up to 20 to 40 grams of magnesium sulphate is administered orally to a normal person the plasma magnesium does not change significantly, although some 40% of the magnesium is absorbed and excreted by the urine within 24 hours.

Herschfelder states that in parathyreoidectomized dogs, the administration of magnesium, even by mouth, helps to prevent tetany.

I think that the conclusion may be drawn that magnesium in concentrated solution is absorbed from the alimentary tract and, although the normal range of plasma magnesium content may not be significantly raised, sufficient is absorbed to act on the neuro-muscular system as a depressant or antispasmodic. This probable storage in the muscle cells is further emphasized by the cases in which patients have two or three painless menses after ceasing to take the mixture, then a recurrence of pain and again relief and a "carry-over" interval.

I do not know of any method by which the psychological factor can be eliminated, as when taking medicine before an event the patient will, we hope, anticipate good results. In the factory cases, after relief was obtained a "dummy" mixture was substituted in an attempt to solve this problem, but the time interval was not long enough to allow conclusions to be drawn.

The fact brought out from the *questionnaire*—that patients of their own accord return to the chemist, buy the mixture and take it according to their own discretion, instead of the usual aspirin, codeine or gin—seems to me to prove the efficacy of the remedy.

I regret the small number of cases, but have not had the opportunity of collecting a larger series, and consider that the results are sufficient to justify a wider use of the method.

Further possible uses may be developed, for example, two patients with menopausal premenstrual tension which would not respond to usual measures are now quite comfortable when taking magnesium gluconate during the premenstrual week. I am now investigating the relief of first-stage pains in *primiparæ* with significant results which I hope to publish when the series is sufficiently large.

### Conclusions.

The results are given of a clinical trial of magnesium gluconate in doses of twenty grains (1·3 grammes) for anticipated relief of spasmodic dysmenorrhœa.

In the treatment of premenstrual distress, of fifteen private patients, thirteen were relieved, two failed to benefit and five were cured (that is, no recurrence occurred); of four factory patients, four were relieved, no follow-up being possible.

In the treatment of menstrual distress, of twelve private patients, ten were relieved, five were cured (that is, no recurrence occurred) and two obtained partial relief; of six factory patients, one failed to benefit, one obtained doubtful benefit and the remainder were relieved but were not followed up.

### Acknowledgements.

Acknowledgement is made to Dr. Copland, Sister Kearney and the laboratory staff of Nicholas Proprietary, Limited, for their cooperation in the industrial series of cases. It is believed that magnesium gluconate will soon be available for general testing.

## AN INFANT RESPIRATOR FOR THE TREATMENT OF ASPHYXIA OF THE NEWBORN.

By H. STUART PATTERSON,
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ASPHYXIA NEONATORUM is the major cause of death of newly born infants, especially the premature. It cannot be too strongly emphasized, therefore, that all maternity hospitals should be equipped to deal with this emergency by possessing some simple, reliable and yet inexpensive form of infant respirator.

My interest was stimulated some years ago by W. Keverall McIntyre, of Launceston, who described a respirator he had made.

During 1947 I interested in the idea an old friend and patient of ours, Mr. E. Lewis, of Ipswich. He is one of those mechanically minded people who can be relied upon to resolve most mechanical problems, and this was no exception. Explaining the underlying principles, and giving

him some plans and suggestions, I left him to it, and all credit for the respirator here described is due to him.

## Description of Respirator.

### *The Respirator Chamber.*

The respirator (Figure I) consists essentially of an oblong pine box with glass windows, and is mounted on an ordinary dressing trolly. The glass chamber contains two concave enamelled metal trays which hold the infant, or

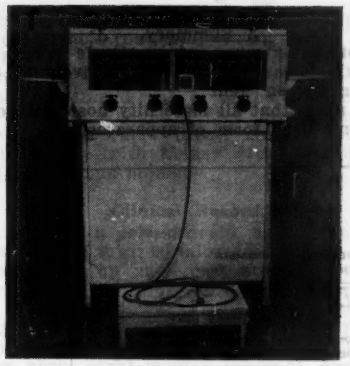

FIGURE I.

General view, showing (i) glass respirator chamber, (ii) instrument panel, and (iii) cable to power supply.

infants in the case of twins. These trays are removable for cleaning and slope towards the head end to facilitate respiratory drainage of the infant. The infant's neck passes through a rubber collar (see Figure III) at the outer end of the glass chamber, and its head rests in an adjustable metal head-rest outside. The glass chamber is rendered airtight by strips of rubber at all points of closure. In the floor of the respirator chamber is a metal pipe of one and a half inches diameter connecting it with bellows mounted on a platform underneath.

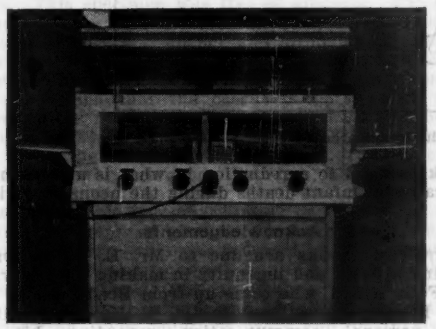

FIGURE II.

Closer view of glass respirator chamber with lid partly raised, and showing (i) concave metal trays for holding infants, (ii) adjustable head-rests outside, (iii) thermometer, and (iv) instrument panel with switches for motor and heating unit and plug-in socket for connecting it to the electric supply.

### *The Power Unit.*

The bellows (Figures IV and V) consist of two circular metal plates, ten inches in diameter, joined to each other by a fifteen inch section of motor tire tube. The tube is clamped to each plate by a metal collar. Four vertical metal stays hold the bellows in position, and a one and a half inch metal pipe connects the bellows with the glass respirator chamber above it. A one-sixth horse-power electric motor drives a belt which transmits its drive to the lower end of the bellows via a reduction unit, thereby pushing the bellows up and down, piston-fashion. The lower end of the bellows moves up and down by means of four brass wheels running over the four metal stays. This makes for easy running. There is an adjustable flap valve on the upper circular plate of the bellows, permitting variation of the positive pressure. The speed of the motor can be regulated by means of adjustable brushes. This allows variation of the rate at which the bellows work. The optimum would be about thirty excursions per minute,

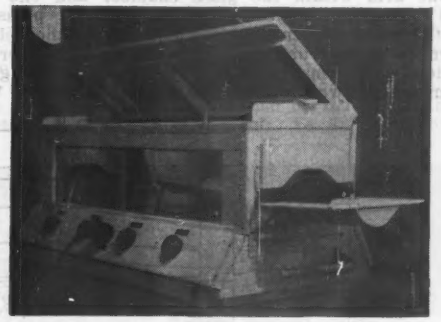

FIGURE III.

Three-quarter view of respirator chamber showing (i) the ends, which can be raised or lowered as necessary; (ii) the rubber collar to fit round the infant's neck; and (iii) the handle beneath the head-rest by which the trolly can be pushed where required.

corresponding with an infant's normal rate of respiration. The whole power unit is enclosed by enamelled plywood which makes for lightness, and handles at either end enable it to be wheeled easily.

### *The Heating Unit.*

Immediately underneath the glass chamber is the heating unit. This comprises six ordinary metal filament 60 watt

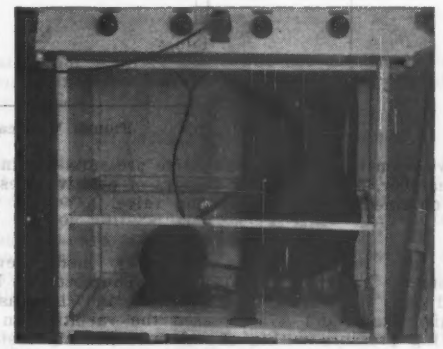

FIGURE IV.

Showing (i) electric motor, (ii) bellows supported by four metal stays and, in the background (iii) the large pulley wheel driven by a belt from the electric motor.

lamps contained in a closed oblong compartment. There are two sliding panels in the floor of the glass chamber, giving access to the lamps in the heating chamber underneath.

### *The Instrument Panel.*

In front of the heating compartment is an instrument panel containing (*a*) a plug-in socket to connect the respirator to the electric supply, (*b*) a switch for the motor,

and (c) three switches for the heating unit, each switch controlling two lamps.

*Temperature Regulation.*

There is a thermometer in the glass chamber. After the heating unit has been in operation for a short time, it is found that two of the six lamps are more than sufficient to maintain a temperature of 80° to 90° F., the optimum temperature.

*Pressure Regulation.*

The fluctuation of the water level in a simple glass U tube (one arm within the glass chamber and one arm outside) gives an indication of alternating pressures within the respirator chamber. The valve on the bellows can then be opened or closed, according to whether the fluctuations of the manometer are too small or too great. An excursion of two or three inches would be safe. With the valve open there is only negative pressure within the glass chamber, but increasing degrees of positive pressure can be obtained by closing the flap valve.

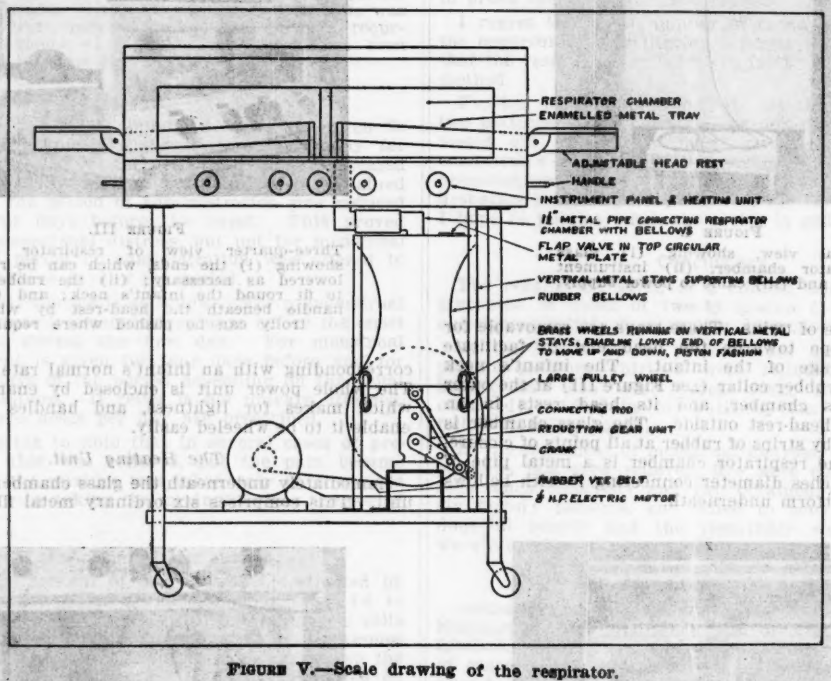
RESPIRATOR CHAMBER
ENAMELLED METAL TRAY
ADJUSTABLE HEAD REST
HANDLE
INSTRUMENT PANEL & HEATING UNIT
1½" METAL PIPE CONNECTING RESPIRATOR CHAMBER WITH BELLOWS
FLAP VALVE IN TOP CIRCULAR METAL PLATE
VERTICAL METAL STAYS SUPPORTING BELLOWS
RUBBER BELLOWS
BRASS WHEELS RUNNING ON VERTICAL METAL STAYS, ENABLING LOWER END OF BELLOWS TO MOVE UP AND DOWN, PISTON FASHION
LARGE PULLEY WHEEL
CONNECTING ROD
REDUCTION GEAR UNIT
CRANK
RUBBER VEE BELT
½ H.P. ELECTRIC MOTOR

FIGURE V.—Scale drawing of the respirator.

## Discussion.

Since the respirator was originally made several improvements have been carried out. Thumbscrews have replaced clips for closing the respirator, and this has cut down air-leakage and so increased the variation in the alternating pressure within the chamber; a zip fastener has been put on the rubber collar to make a snug fit around the infant's neck; and plastic wheels with ball-bearings have made for easier running of the trolly.

If not required as a respirator, the apparatus can be used in two other ways: (a) solely as a heating cot—for example, for premature infants, the whole of the infant being placed within the glass chamber; (b) as an oxygen "tent", the infant being placed wholly within the glass chamber, and "Carbogen" or oxygen introduced into the chamber by a catheter.

The glass chamber gives an excellent view of the infant within, and provides an ideal place in which to nurse a premature infant. Recently Wallace, of Edinburgh, described the method of nursing premature infants completely naked in such a warmed glass chamber. The absence of clothing prevented the impeding of the infant's respiration—a not inconsiderable point in a premature infant—and skin infections were found to be reduced in incidence. Cleaning of the infant was also facilitated.

*Cost.*

The cost in materials was approximately £20 to £25. The chief items were the motor (£6) and the reduction unit (£3 10s.). The timber cost £1. It is probable, however, that had it been built by a commercial firm, the cost would have been £60 to £80, though this amount could be reduced if a firm made a number of the one type of respirator.

## Summary.

A description is given of a simple form of infant respirator which can be used alternatively as a heating crib or as an oxygen "tent".

A plea is made that all maternity hospitals possess and maintain some such form of apparatus. By so doing we can look forward to a reduction in what is at present the major cause of infant deaths during the neonatal period.

## Acknowledgements.

My grateful thanks are due to Mr. E. Lewis for his unflagging interest and ingenuity in making the respirator; to Dr. Felix Arden, who came up from Brisbane and made several helpful suggestions; to Dr. W. Keverall McIntyre for a personal communication regarding his own respirator; to Mr. Ken Whitehead, photographer, who was at pains to obtain some excellent photographs; and to Mr. J. J. Goodin for his drawing.

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# Reports of Cases.

## RENAL CORTICAL NECROSIS IN PREGNANCY: REPORT OF A CASE.

By PHILIP C. THOMAS, M.R.C.O.G.,
*Perth, Western Australia.*

RENAL CORTICAL NECROSIS is presumably a rare condition; but it is conceivable that its apparent rarity may be due, in part at least, to the failure to recognize the condition among the patients who present suppression of urine during and following labour, or to the lack of opportunity to follow patients who have died from toxæmia to the post-mortem room, where (apart from a biopsy carried out simultaneously with kidney decapsulation) the only positive diagnosis can be made.

### Clinical Record.

Mrs. G.E.S. was a *primigravida*, aged twenty-six years, residing in a small town 60 miles from Perth. Her family doctor states that up until one month before the onset of her symptoms, her progress during pregnancy (blood pressure, urinary findings *et cetera*) had been normal; but during the month prior to the onset of symptoms she had not presented herself for examination. On March 10, 1947, when about eight months pregnant, she complained of extremely severe upper abdominal pain, associated with vomiting, which lasted about four hours and did not recur. She was admitted to the local hospital, but was discharged on the following afternoon. No sooner was she home than hæmorrhage *per vaginam* commenced; it continued all night, although just how much blood was lost it is impossible to ascertain.

She was admitted to King Edward Memorial Maternity Hospital at noon on March 12 with a blood pressure of 160 millimetres of mercury, systolic, and 130 millimetres, diastolic, a pulse rate of 88 per minute, a temperature of 97° F., and a hæmoglobin value of 80%; she looked very sallow, ill and toxæmic. Slight œdema of the ankles was present, and when her bladder was catheterized only two ounces of urine were withdrawn, although she stated that she had not passed urine during the previous twenty-four hours. This specimen was free of albumin. Examination of the abdomen revealed the fundus to be enlarged to the size of a 32 weeks' gestation, and although the uterus was tense no tenderness was present. The presentation of the fœtus could not be ascertained by abdominal palpation. It was decided that the case was not one of *placenta prævia*, and a rectal and then a vaginal examination were performed. These procedures revealed that the head was well down, the cervix was well effaced, and *liquor amnii* was draining through an undilated os; but no contractions were occurring. The fœtal heart was heard at 1 p.m., but was inaudible four hours later. In view of the extreme oliguria one pint of glucose solution (25%) was given intravenously, and this was followed by one pint of serum. Since her admission to hospital no further revealed hæmorrhage had occurred, but her pulse rate had increased from 88 to 120 per minute and her general condition was deteriorating. The solutions were run in intravenously over a period of about one and a half hours. At the end of that time she suddenly became distressed from pulmonary œdema, which responded to the exhibition of atropine and oxygen. Her bladder was again catheterized at 8 p.m.—that is, eight hours after the catheterization performed on her admission to hospital—and the three ounces of urine obtained when tested were found to contain two-thirds albumin, numerous red cells, a large number of waxy and some granular casts, and some epithelial cells and leucocytes. From 9 p.m. onwards she gradually became more dyspnœic, with obvious moist sounds in the lungs and "air hunger" type of breathing. The treatment consisted of the administration of atropine and morphine, and continuous oxygen therapy. Mentally she was alert, and remained so until 10.30 p.m., when suddenly, ten and a half hours after her admission to hospital, she had a convulsive seizure and died.

### Post-Mortem Findings.

Post-mortem examination revealed the following findings. The lungs were œdematous. A pericardial effusion was present, with a patch of pericarditis on the anterior aspect of the heart near the interventricular septum; otherwise the heart was normal. The stomach was dilated. There was no peritonitis or ascites. The liver appeared normal on macroscopic examination. The uterus contained a dark retroplacental clot about the size of a clenched fist; the placenta was situated in the upper segment on the left antero-lateral aspect. Apart from a small fibroid tumour in the mid-line anteriorly, the uterus was normal. The fœtus appeared normal on macroscopic examination. The right kidney was lobulated, but of normal size, and examination revealed a blanched zone about three-eighths of an inch in width around the entire periphery. Examination of the left kidney revealed no lobulation, but otherwise the macroscopic appearance of the left kidney was identical with that of the right. By an oversight unfortunately the pituitary gland was not examined, and blood taken before death for blood urea estimation was inadvertently spoiled.

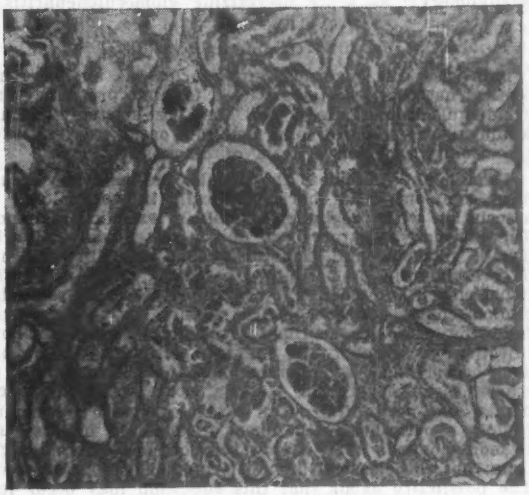


FIGURE I.

### *Pathological Report on the Kidney.*

The kidney submitted for examination was received fixed in formalin; it measured 9·5 centimetres in length, 4·5 centimetres in width and two centimetres in thickness, and was of uniform grey colour. Colour-restoring fluid brought back a yellowish-grey appearance to the surface, revealed after removal of the capsule which stripped easily. Examination of the external surface revealed faint lobulation and a somewhat mottled appearance; darker and more reddish areas alternated with more lightly stained areas, each merging into the other almost imperceptibly. On examination of sections the cortex was found to vary only slightly in width from five to seven millimetres; it was light yellowish-grey and slightly raised above the medulla and contained faint petechial hæmorrhages. Its demarcation from the medulla was distinct.

Microscopic examination of the sections confirmed the uniform extent of the lesion throughout the entire cortex. No glomeruli were found to be intact. Their loops were tightly filled with red blood cells. Occasional fibrin thrombi were seen, rather compact and detached from the walls. The endothelial nuclei of many loops, not only of those thrombosed, had disappeared completely. Occasionally the lumen was filled with a few polymorphonuclear leucocytes. The epithelium of Bowman's capsule showed no proliferation, the majority of cells appearing rather compressed, although in a few swelling was seen. Most

glomeruli were enlarged and filled their capsules tightly. Pointing into the tubules was not observed. With Mallory's aniline blue stain all glomeruli displayed clearly the reticular thickening of the basement membrane, characteristic of the eclamptic lesion in the kidney. This feature gave the capillary loops in their transverse sections an almost exactly spherical appearance.

The convoluted tubules showed varying degrees of necrosis; in some the nuclei were absent and their cytoplasm was swollen and homogeneous. In others, however, the nuclei were pyknotic and the cytoplasm was cloudy and swollen, but the cell borders were still visible. The swelling of the cytoplasm did not affect all the tubule cells equally, thus giving the lumen a serrated appearance. Fibrin was present in the convolutel tubules as a fine network almost invariably, and in the collecting tubules scattered fibrinoid material was detected.

The lesion found in this kidney is thought to be identical with that described by J. Shaw Dunn and G. L. Montgomery[1] as acute necrotizing glomerulonephritis.

## Comment.

This case was regarded *ante mortem* as one of renal cortical necrosis associated with a toxæmic pregnancy and accidental hæmorrhage, and the post-mortem findings would appear to have confirmed this or at least satisfied the usually accepted criteria of diagnosis.

Though not limited to the female, the condition occurs most commonly and characteristically in women, and in association with pregnancy, usually a toxæmic pregnancy. The distinctive features are anuria or extreme oliguria, usually retroplacental hæmorrhage, and preceding evidence of preeclamptic or eclamptic toxæmia with, *inter alia*, hypertension and œdema. A condition presenting a similar clinical course and pathological picture has been reported following corrosive sublimate poisoning, the intravenous injection of camphor and dioxane poisoning, and it has also occurred as a complication of such infections as scarlet fever, diphtheria, malaria, acute tonsillitis, pneumonia and peritonitis. The toxæmic picture developing rapidly, shortly before the onset of labour as in this case, is more common than a slow development over a longer time; but the classical uræmic symptoms are rarely seen. The possibility exists that this condition may occur less extensively in some cases than in others, thus permitting recoveries; but after the appearance of complete or almost complete anuria, the prognosis in the majority of cases is extremely grave, the mortality rate for all cases being about 85%.

With regard to treatment, most evidence suggests that the lesion, rather than being progressive, is extensive from the outset, and therefore spectacular results cannot be expected. Fluid intake orally and intravenously is maintained to the point of mild œdema. The bowels are kept well opened and sweating is encouraged. Transfusion is employed in an endeavour to combat the anæmia, serum is given if the serum protein content is lowered, and alkalis are given for any acidosis. When urine begins to be excreted, some authorities prescribe diuretic drugs. Early decapsulation of the kidney has its advocates; but the value of this operation is still under judgement.

Detailed discussion of the ætiology is out of place here. Suffice it to say that, although it seems that the primary lesion is vascular, its precise nature has not yet been elucidated. The association of the anterior lobe of the pituitary and renal cortical necrosis is a recent discovery; but apparently vascular lesions similar to those in the kidney take place in the pituitary, particularly in the stalk, leading to necrosis of the entire *pars anterior*, the rest of the gland being normal. It is not suggested that the pituitary gland in this case would necessarily have shown these changes; but with reference to these cases of cortical necrosis, future evidence will probably show a more frequent association between these similar lesions of the kidney and pituitary, it being reasonable to assume that a more complete examination would have uncovered this phenomenon in some at least of the earlier reported cases.

## Summary.

1. A case of pregnancy complicated by accidental hæmorrhage and renal cortical necrosis is presented, with post-mortem and pathological findings.
2. The ætiology and treatment of the condition are briefly discussed.
3. Reference is made to its association with anterior pituitary necrosis.

## Acknowledgement.

My thanks are due to Dr. T. R. Lubbe, pathologist at the Royal Perth Hospital, and to his technician, Mr. W. C. James, for their help in the preparation and examination of specimens, sections, photomicrographs *et cetera*, and to Dr. B. C. Cohen, who performed the autopsy.

## Reference.

(1) J. S. Dunn and G. L. Montgomery: "Acute Necrotising Glomerulonephritis", *The Journal of Pathology and Bacteriology*, Volume LII, 1941, page 1.

# A CASE OF POISONING WITH "DILANTIN" (SODIUM DI-PHENYL HYDANTOINATE).

By A. W. YOUNG, M.B., B.S. (London), D.P.H. (Manchester),
*Hobart.*

A.H., AGED eight years, the fourth of five normal children whose father is an epileptic, was admitted to the Royal Hobart Hospital at midday on January 29, 1948.

His mother gave the following history. The child did not arrive at the breakfast table with his customary exuberance, and on investigation she found him fast asleep in bed and roused him with great difficulty. He was very drowsy and seemed confused, and later vomited several times.

On examination after admission to hospital the child was flushed and drowsy, but conscious, with apparently very slow cerebration. His temperature was normal, his pulse rate was 88 per minute, his respiration rate 20 per minute. There was pronounced rapid nystagmus in all axes. The cranial nerves showed no other abnormalities. The ear drums were normal and the throat was clear. There was no neck rigidity and Kernig's sign was absent. There was very pronounced ataxia on sitting upright, and to counteract this the child sat in a "tripod" position. He could not stand unaided. There was much incoordination in "finger-nose" tests and "finger-to-finger" tests. Dysdiadochokinesis and astereognosis could also be demonstrated. There was no impairment of cutaneous sensation. Power and tone of the limbs were normal except for the right lower limb, which had recently been removed from a plaster cast for treatment of a fracture. The deep reflexes were normal and the plantar reflexes were flexor in type. The optic fundi were not visualized because of the rapid nystagmus.

Lumbar puncture yielded clear fluid under pressure of 120 millimetres of cerebro-spinal fluid with a normal Queckenstedt response. Cyto-biochemical examination revealed no abnormalities.

At 6 p.m. that evening the child was still very ataxic but was rather more alert mentally.

The next morning there was still nystagmus in all axes, but with a slower oscillation. The ataxia and muscle coordination were much improved.

On January 31, 1948, there was nystagmus in the horizontal axis only. There was no ataxia and no Rombergism, and muscle coordination was good. The child confessed that on the evening before his admission to hospital he had ingested five capsules from his father's bottle, which was kept on the dresser. Each capsule in the bottle contained one and a half grains (0·1 gramme) of "Dilantin" (sodium di-phenyl hydantoinate). He stated that he had given another capsule to his younger brother, aged four years. The mother was able to confirm that six capsules were missing from the bottle.

The child was discharged from hospital on January 31, 1948, but was readmitted on February 2, 1948, with persistent vomiting. After admission, however, he had no further vomiting. Examination of the central nervous system showed no abnormalities and he was finally discharged on February 4, 1948.

**Summary.**

A case of poisoning with "Dilantin" in a child is described. The outstanding features of the case were the rapid nystagmus in all axes and the pronounced widespread ataxia. The child recovered quickly without active treatment and, in fact, the noticeable improvement in the six hours following his admission to hospital gave some clue to the correct diagnosis.

## A CASE OF INDUSTRIAL POISONING WITH ARSINE TREATED WITH BRITISH ANTI-LEWISITE.

By H. W. GARLICK,[1]

*From the Clinical Research Unit of the Walter and Eliza Hall Institute of Medical Research and the Royal Melbourne Hospital.*

BRITISH ANTI-LEWISITE (BAL) has been shown to have some prophylactic and therapeutic action in animals against the lethal effects of arsine.[1] No case of arsine poisoning in man which had been treated with BAL could be found in the literature, and for this reason this case is recorded.

### Clinical Record.

J.K., a male, aged fifteen years, who is employed in the manufacture of arsenical weed killer, was admitted to the Royal Melbourne Hospital on September 23, 1947. Twelve hours before admission he wakened at 4 a.m. with severe epigastric pain and vomiting. On one occasion the vomitus contained eight ounces of blood. Two hours later he passed dark red urine and he was noticed to be jaundiced. His previous health had been good, except for frequent attacks of mild epigastric pain during the preceding five weeks. On examination he appeared moderately ill and obviously jaundiced, but not intensely so. His temperature was 100·2° F. and the pulse and respiratory rates were normal. The liver and spleen were just palpable and both organs were tender. Clinical examination otherwise gave normal results. The urine was dark red in colour and acid in reaction, and contained a great deal of albumin; microscopic examination showed a granular deposit; spectroscopic examination showed oxyhæmoglobin bands; the Gutzeit test for arsenic yielded a negative result. Blood examination revealed a hæmoglobin value of 83% (11·6 grammes), the red cells numbered 3,400,000 per cubic millimetre, and the leucocytes 16,000 per cubic millimetre. The leucocytosis was due to neutrophilia with a shift to the left.

A provisional diagnosis of arsine poisoning was made and the following treatment given. (i) The urine was made alkaline by an intravenous injection of forty millilitres of Bick's solution[2] (equal parts of four molar sodium lactate solution and a saturated solution of sodium bicarbonate). Alkalinity was then maintained by alkalis given orally. (ii) BAL in doses of three milligrammes per kilogram of body weight (2·2 millilitres) was given intramuscularly four-hourly for two days, six-hourly on the third day, and twice daily for a further five days. BAL therapy was stopped on the ninth day because of vomiting, which is one of its known toxic effects.[3] (BAL is dispensed as a 10% solution in peanut oil.) (iii) Eight pints of glucose drink were taken in the first twenty-four hours and then he was given a diet with high carbohydrate and low fat content. (iv) Ferrous sulphate, three grains three times a day, was administered from the sixth day onwards.

[1] Wyeth Fellow in Medicine.

After thirty-six hours the patient's general condition had greatly improved, and the jaundice and hæmoglobinuria had diminished. On the third day the urine was macroscopically normal and the patient felt well. The jaundice cleared on the sixth day. The hæmoglobin value had fallen to 64% and the erythrocyte count to 3,000,000 per cubic millimetre by the seventh day, but thereafter there was a steady rise in both with a reticulocytosis of 6%. When the patient was discharged from hospital on the twenty-second day of his illness (October 14, 1947) the blood picture was normal.

A liver biopsy performed on the fifteenth day showed normal liver tissue. Liver and renal function tests gave normal results when the patient was discharged.

### Discussion.

*Source of Arsine.*

One type of weed killer manufactured by the patient's employers is arsenic pentoxide. This is made by the oxidation of arsenic trioxide with nitric acid. The arsenic pentoxide so formed is mixed with water and normally stored in glass containers. At the time of the onset of the patient's illness the arsenic pentoxide was stored in drums made of mild steel because of a shortage of glass containers. A certain amount of arsenic acid is formed when arsenic pentoxide is mixed with water, and this acid in the presence of iron liberates arsine.[4] The patient stated that on the day before admission to hospital he unscrewed the plug of one of these drums and inhaled some fumes from the drum.

*Proof of Diagnosis.*

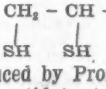
Analysis of hair, nails, fæces and urine for arsenic was carried out by Mr. Taylor, the Government medico-legal analyst, who stated that there was a significant trace of arsenic in the urine but none in the other samples. The ordinary Gutzeit test for arsenic yielded a negative result because the arsenic is excreted in the urine as a BAL-arsenic compound which is very stable. After decomposition of the BAL-arsenic compound with a strong oxidizing agent the result of the test was positive. This distribution of arsenic was what one would expect in a case of arsine poisoning, and these findings alone suggested such a diagnosis to Mr. Taylor.

*Pathology of Arsine Poisoning.*

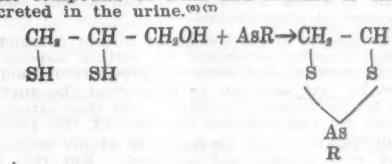
When arsine is inhaled most of the gas reacts with the red blood cells, resulting in hæmolysis and liberation of hæmoglobin and an arsenic-containing compound. The hæmoglobin set free is partly excreted in the urine and partly converted to bile pigments. The arsenic is fixed in the tissues, particularly in the liver and spleen.[5]

*Rationale of BAL Therapy.*

BAL is 2:3 dimercaptopropanol



It was first introduced by Professor Peters, of the Oxford University, as an antidote to the arsenical poison gas Lewisite. Arsenic combines with the sulphydryl (SH) groups of the tissues and inactivates the sulphydryl-containing enzymes. BAL has a greater affinity for arsenic than the sulphydryl-containing enzymes, and a stable non-toxic compound of BAL and arsenic is formed which is excreted in the urine.[3][7]



*Effectiveness of Treatment.*

In mice BAL is effective in the treatment of arsine poisoning only if it is first given within twelve hours of inhalation of the gas. In this case treatment was com-

menced twenty-four hours after inhalation of the gas, so it is possible that recovery was due to the fact that the patient inhaled a sublethal dose of arsine. The administration of BAL did, however, result in the excretion of some arsenic, as shown by the fact that the positive result from the Gutzeit test was obtained only after treatment of the urine with a strong oxidizing agent.

In this regard it was of interest to learn that J.G., a male, aged fifty years, who was employed in the same work as this patient, was off duty for a month with an illness the chief features of which were jaundice and the passing of red urine. He was not given any specific therapy and made a complete recovery. However, it is not possible to assess the relative severity of the symptoms during the first twenty-four hours in these two cases.


### Summary.

A case is reported of industrial poisoning with arsine which was treated with BAL. No reference can be found in the literature to a case of arsine poisoning in man having been treated with BAL.



### Acknowledgements.

I wish to acknowledge the help I have received from Dr. Ian Wood and Dr. P. J. Parsons, of the Clinical Research Unit. I am indebted to the senior chemist at the factory concerned for assistance in tracing the source of the arsine, and to Mr. Taylor, the Government analyst, for chemical analysis of specimens.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(2) Marjorie Bick and E. B. Drevermann: "A Method for the Rapid Alkalinization of Urine", THE MEDICAL JOURNAL OF AUSTRALIA, Volume I, 1941, page 223.

(3) "'BAL' (British Anti-Lewisite) in the Treatment of Arsenic and Mercury Poisoning", Report of the Council on Pharmacy and Chemistry, *The Journal of the American Medical Association*, Volume CXXXI, 1946, page 824.

(4) J. W. Mellor: "A Comprehensive Treatise of Inorganic and Theoretical Chemistry", Volume IX, page 52.

(5) "Medical Manual of Chemical Warfare", British War Office, January, 1943.

(6) M. B. Sulzberger and R. L. Baer: "Development and Use of BAL", *The Journal of the American Medical Association*, Volume CXXXIII, 1947, page 293.

(7) R. A. Peters, L. A. Stocken and R. H. S. Thompson: "British Anti-Lewisite (BAL)", *Nature*, Volume CLVI, 1945, page 616.


## Reviews.

### REPRODUCTION AND SURVIVAL.

A RATHER surprising but interesting small volume recently published is "Reproduction and Survival" by the well-known obstetric surgeon of London, R. Christie Brown.[1]

Dr. Brown's object seems to be that of critically examining a view that many are now said to express, namely, "that reproduction (meaning human reproduction) is also of necessity a healthy process". In his preface he states that "when much is written upon the subject of physiological childbirth and when it appears to be popular to teach the lay public that childbirth should be simple, safe, and more or less painless, it seems necessary to call a halt and to review the purpose of reproduction".

In order to do justice to his thesis the author commences by a somewhat lengthy reference to certain aspects of evolution and to asexual and sexual reproduction amongst the lower animals. He sets out to show that the survival of the species is the primary necessity and that often this is achieved only by the ruthless sacrifice of the parents. Some of his conclusions could no doubt be amply supported and others are well known and accepted. But this is a most unfortunate section of the book to anyone familiar with reproduction in the animal kingdom. Many of the author's startling statements are far from the truth, and, although these inaccurate and overdrawn zoological examples might not have much bearing upon his opinions of human reproduction, they take away much of the value his earlier chapters might be supposed to have. And these form a very considerable part of the book.

For example, it is difficult to understand what facts the author had for the statement: "In the deep sea, conditions are peculiarly favourable for the existence of large numbers of unprotected eggs and unattended larvæ, since where there is a large bulk of water the temperature of any particular geographical area is more or less constant." There are other loose and sometimes quite incorrect remarks on reproduction in the lower animals.

The section of the work closely associated with human obstetrics also contains some references which could bear emendation. And there is no excuse for an English author failing to give proper credit to the Australian, N. McA. Gregg, for his observations on rubella and congenital defects. When, however, the author gets to his real field and writes of practical obstetrics one can discern a background of accurate observation and great experience. Yet some of his views will certainly be far from acceptable and others seem to us to be rather exaggerated. In places he seems harsh, but many will probably agree with him on the doubtful wisdom of trying too assiduously to defeat Nature's attempt to miscarry. Many points are made which could be contested only with difficulty and there is an indication of wide reading. His final chapter on labour as an instrument of natural selection is excellent and most interesting. The author finds little to indicate that pregnancy is a happy state!

Whether the author's conclusions are correct, or acceptable to any representative of the species *Homo sapiens* with a grain of egotism in his make-up, are questions which would make a most interesting debate.

The essay is neatly printed, easy to read, and reasonably priced. It contains an adequate index and bibliography.

[1] "Reproduction and Survival", by R. Christie Brown, M.B., B.S., F.R.C.S., F.R.C.O.G.; 1948. London: Edward Arnold and Company. 7¼" × 4", pp. 108. Price: 6s.

### THE ANATOMY OF THE EYE AND ORBIT.

EACH successive edition of Wolff's "Anatomy of the Eye and Orbit", is so much better than its predecessors that one buys it.[1] The older ones resemble the part-worn trousers of the older brother that are handed on to younger brothers. The older books reach younger friends or a hospital library. This work is more than a study of the gross and the minute structure of the tissues concerned. In an illuminating fashion statements regarding function are scattered here and there. But of even greater value are the references to clinical ophthalmology. These are increasing with each edition and play a great part in causing this work and even the latest edition of this work to be an essential part of every ophthalmologist's library. As an example of such a clinical reference consider: "The sphincter muscle does not lie loose in the stroma tissue. Each portion adheres firmly to surrounding structures by vessels and by radial branches of connective tissue. Hence, after an iridectomy, the portion of the sphincter remaining does not contract up and the pupil can still react to light." The last sentence is in italics, as are most practical considerations in this volume.

In this work there are almost 450 pages and 323 illustrations, of which 21 are coloured. There are eighty more illustrations than in the previous edition—the majority of these are from sections made in the pathological laboratory of what is now the Westminster branch of the combined hospitals. The sections of the text that have been developed mainly in this edition are those dealing with the ciliary muscle, the *substantia propria* of the cornea, the vitreous, the distribution of the lachrymal fluid, the precorneal film, the retinal capillaries and the central connexions of the visual apparatus. One section that appears inadequate is that dealing with the fibre paths descending from the three cortical oculomotor centres and those that connect these three centres. The writings of Gordon Holmes are of greater value on these subjects.

The manner of production, the clarity of the text, the detail of the illustrations and the quality of their colouring are reasons for congratulations to the author and the publisher.

[1] "The Anatomy of the Eye and Orbit, Including the Central Connections, Development and Comparative Anatomy of the Visual Apparatus", by E. Wolff, M.B., B.S. (London), F.R.C.S. (England); Third Edition; 1948. London: H. K. Lewis and Company, Limited. 10" × 7", pp. 448, with 323 illustrations, many of them in colour. Price: 45s. net.

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## THE TEACHING OF HEALTH AND HYGIENE TO QUEENSLAND CHILDREN.

THE Department of Public Instruction in Queensland, by the inclusion of teaching on health and hygiene in primary schools, has taken a step of the utmost importance and has set an example to the departments of other States of the Commonwealth. We all know that one of the main objects of education is to teach a child to think. And we expect that when a child leaves school at the adolescent stage, he or she shall be so advanced mentally as to be able to undergo training in order to earn a living. This mental advance shows itself in something more than an ability to display knowledge of collected facts; the growing individual has learned something of the world in which he lives, of what other people want to do and of what some of them are trying to do. He may even have the wit to note the effect of these actions on other people and their doings. He soon learns what he wants to do himself, and he may have enough vision and understanding to know why he wishes to choose a course of action. This means that he has not only received certain instruction, but has to some extent been educated. During this time the body has grown with the mind; the child has become an adolescent and the adolescent is well on the way to manhood. The hazards to which the awakening mind of childhood are exposed in these present days are enormous and of many different kinds; those that may assail a rapidly developing body are of equal menace. Up to the present those charged with the education of children have been concerned mainly with the development of the mind. It is true that, by means of medical examinations in schools from time to time, a watch has been kept to check the development of abnormalities or unhealthy tendencies in body build. But this is not subjective from the child's point of view. The child has not been taught by his school teachers what health means, he does not know how he is to conduct himself if he wishes to remain healthy, and he does not know how to recognize an unhealthy sign when it first appears. The child's mind is led, is educated, in its development; it expands, in the proper educational atmosphere, by a conscious effort. The same kind of arrangement should operate for the developing body; and the child should know, should understand and should study health or wholeness. This is what Queensland is trying to bring about.

To aid in this pioneering attempt, the Queensland Health Education Council has collaborated with the Department of Public Instruction and has produced a handbook for teachers entitled "Subject: Health".[1] A number of persons are responsible for the volume as it stands: Kenneth W. Lawrence is credited with "book presentation and production"; the talks have been written and presented by Maurice J. H. Unwin; the illustrations have been the care of Suzanne Cameron; the music has been provided by Edward H. Leadbeater and "material research and indexing" have been done by Mary B. Harrison. The Queensland Health Education Council consists of eighteen members and there are a secretary and an assistant secretary. The chairman is Mr. John Henry Jones, representing the University of Queensland. The medical members are Dr. G. S. Hayes, of the Department of Health of Queensland (deputy chairman), Dr. F. W. Arden, Dr. E. H. Derrick, Dr. Douglas Gordon and Dr. Konrad Hirschfeld. Mr. E. M. Hanlon, the Premier of Queensland, in his foreword describes the work as the culmination of years of effort to convince the public that it is much better to prevent sickness before it happens than to cure it after it has happened. He also writes: "Preconceived ideas and prejudices are difficult to remove from the thinking of the adult generation, and it is mainly to the children, the citizens of to-morrow, that we must look in building up in the community a new corporate consciousness of the inestimable value of good health as a practical, effective insurance against disease." He adds that ignorance is the greatest enemy of health and the most potent ally of disease. The contents of the book are comprised in eight chapters, dealing successively with communicable diseases, food for fitness, anatomy and physiology, posture, teeth, safety first, pests and miscellaneous matters. A number of authorities, many of whom are qualified medical practitioners, have dealt with these subjects. Each of the chapters is divided into several sections; the sections consist of a "talk" and then some suggested "activities" for the pupils to impress on the child mind what has been discussed in the talk. There are sometimes "suggestions" for the teacher in regard to ways in which the lesson of the talk may be driven home. One interesting feature about this book, which, it should be noted, embodies the syllabus on health and hygiene, is that it is not intended to be used as a rigid guide to what happens in class. The teacher is looked on as an intelligent person, who has had experience in the handling of children of various ages. The blunt statement is made that the book is not intended as an attempt to force upon teachers any particular method or methods. "They have entire freedom to adopt methods that their knowledge and experience suggest are best." An extract from a Canadian departmental publication is quoted: "Trust your own inspiration. There is no standardized way of getting children to be healthy any more than there is a magic way of getting them to be good." In spite of this broad-minded statement there will probably be few teachers who will depart to any great

[1] "Subject: Health—A Handbook for Health Education", produced by the Queensland Health Education Council in collaboration with the Department of Public Instruction; Brisbane; 1948. 9¾" × 7", pp. 382, with many illustrations.

extent from the syllabus as set out for them. Parents—it is to be hoped that this book will be available to them on the open market—will probably be content with it as it is. The illustrations, some of which are a sheer delight, are numerous and deal with all sorts of subjects and various aspects of the same subject. Acknowledgement is made to the sources from which some of them have been collected. Some are described as intentionally simple and capable of being quickly copied by teacher or child. This we doubt very much, but probably the attempt to copy them will only serve to impress the subject on the mind of the would-be copier, and that is really all that matters. We are not concerned in this place with the aptness or even the correctness of all the stories mentioned in the "talks" in this work, nor with the suitability of the "activities" and of the illustrations. By and large they are first rate, and if a reader or a teacher (be he schoolmaster or parent) does not approve or see the point or the message in a story he may "trust his own inspiration" and do better. The main point about this book is that it is a serious attempt and a very praiseworthy attempt to do something that needs doing.

The introduction to Queensland schools of systematic teaching of health and the methods for its attainment brings to mind another branch of study which should be adopted in schools more widely than it is. This is the subject of biology. There is no need to state once more all the arguments that can be put forward in its favour. We have stated that children should be so educated that they will take an intelligent interest in, and know, their places as members of the community when they have grown to full manhood or womanhood. This implies a certain philosophical appreciation of the general place of man in the universe. This is not possible without some understanding of man in relation to his fellow creatures in lower biological strata. In any case it is easy for a child to learn objectively on animals much that he should learn subjectively on himself and other human beings. We know that at certain superior girls' schools geology is taught because rocks have no sex and new rocks are not produced by a sexual process that has to be explained. It is high time that this reproach was removed. If Queensland will turn its attention in this direction in a comprehensive way, it will confer another lasting service on the youth of Australia.

# Current Comment.

## THE TREATMENT OF NEURONITIS.

THERE is no doubt that fashions exist in all things; amongst others, in methods of therapy of disease. When a method is discarded it is usually for good reason, but sometimes the old-timer scores a success. The remarkable gifts of specific drugs made to the world of recent years must not blind us to the fact that there are still only too many maladies for which no specific is known. Non-specific therapy has suffered somewhat of an eclipse, one form of it in particular, the use of typhoid-paratyphoid vaccine. This once popular treatment for a number of unrelated conditions was overdone, and that it was not without a certain degree of risk, or at least the need for caution was pointed out by a number of writers. The article published by Hench about twenty years ago on the body reactions demonstrable after injections of a killed vaccine is still a classic, and it was most enlightening on the wealth and range of changes initiated by this procedure. A. M. Rabiner, M. Rosenberg and H. Freedman have recently published a small but interesting series of cases of those somewhat vague neuropathic conditions usually classed as "polyneuronitis".[1]

Their patients were only seven in number, but six of the seven seemed to benefit so much from the treatment that these authors think that further trial might well be made of the method in a disease that may involve the nervous system widely, may last for months or longer, may leave sequels for a very long time, and may even threaten life. Their first patient became almost quadriplegic, and improvement began only when, after an illness of several months, "T.A.B." vaccine was given intravenously. The degree of hyperalgesia suggested radicular involvement, and the dissociation of protein and cell reactions in the cerebro-spinal fluid usually found in the Guillain-Barré syndrome was present. The indication for special, if not specific, treatment was steady downward progression of the neural lesions and of the general condition, and in every instance but one improvement was seen, leading to satisfactory recovery. In the remaining case the patient's history suggests involvement of parts of all levels of the nervous system, perhaps of the type usually called diffuse encephalomyelitis. Deterioration of this patient's condition was rapid, and death occurred the day after vaccine treatment by parenteral administration had begun.

The initial dosage used was ten million typhoid bacilli, *plus* the usual proportion of paratyphoid organisms, and if little response was obtained with the first dose, an increased amount was given after a few hours, followed by increasingly larger doses every second or third day. This technique is based on the production of a febrile reaction, and the dose was adjusted accordingly. Physicians with experience of this method will agree that it is wise to begin with a small dose, as vaccines differ in their pyrogenic properties, and patients also differ in their reactions. Study of the patients showed that the most dramatic effect of treatment was the relief of pain. Restoration of motor power lagged behind this, as might be expected, and recovery of sensation was the slowest of all. No correlation could be discovered between the severity of the illness or its clinical course and the amount of protein in the spinal fluid. This is in accordance with other observations made on this clinically variable disease. It is, of course, not an ætiological diagnosis that is made, as we do not know whether the virus which is assumed to be the cause is single or multiple. The last patient in this series may be mentioned to show that this syndrome may perhaps be due to a number of different causes. He had been a heavy drinker, and suffered from neurosyphilis, and was thought at the time of his admission to hospital to have an avitaminosis. Penicillin was also administered, but though return of motor power occurred shortly afterwards, the authors think that it had little to do with this change in the clinical condition. But even if this case is omitted from the series there seems to be reason for believing that there was a causal relation between the intravenous injection of vaccine and the start of remission. Certainly there is no less logic in this treatment than in some of the physical methods which can hardly affect an increasing lesion in the nervous system.

## A NEW ANTISPASMODIC DRUG.

NEW synthetic drugs are like new motor-cars; they need a considerable period of trial before their characteristics are fully known. These last trials, with man as the experimental animal, are the most important of all, and in this matter public opinion has become more enlightened, and medical bedside investigators are more critical. Clinical trial has been made of dibutyline, which is chemically dibutyl urethane of dimethyl ethyl-hydroxyethyl ammonium sulphate, and has valuable antispasmodic properties. Previous reports have been favourable, when the drug was used both as a cycloplegic and mydriatic, and also as an agent to relax spastic smooth muscle. G. H.

[1] *Annals of Internal Medicine*, September, 1948.

Marquardt, J. T. Case, G. M. Cummins, junior, and M. I. Grossman now publish their results in the treatment of patients suffering from spasm of the gastro-intestinal tract, the biliary tract and the genito-urinary system.[1]

In pharmacological tests the drug has been found to have a direct inhibitory action on the unstriped muscle of the bowel, and also to act as an antagonist to acetylcholine. Other investigators have shown that it inhibits motor activity of the intestine and in higher doses relaxes tone. Dibutyline acts more quickly than atropine, taking effect within a few minutes, and its action is also more intense, if less sustained. Administration of dibutyline to patients with gastric ulcer produced the same degree of inhibition of basal gastric secretion as atropine. In no instance was discomfort or tachycardia caused by giving 10 to 20 milligrammes of the drug. Flushing has been seen, but with no disturbance of the capillary circulation in the nail beds.

Clinical trial was made by the authors in the treatment of patients who suffered from colonic spasm of the functional type, spasm associated with diverticulitis, ulcerative colitis, gastro-enteritis, regional enteritis, and pylorospasm associated with duodenal ulcer, gastric ulcer, gastritis, and also with functional conditions. In this wide range of spastic contraction of the alimentary tract a striking degree of success is reported. Success was also obtained in the treatment of three patients with pyloric obstruction due to duodenal ulcer, but surely the obstruction here was only of a transient nature. Of course, even in spasm associated with an organic basis there is often superadded a certain degree of muscular contraction which is capable of temporary relief. As might be expected, no constant relief was noted in a few babies with pyloric stenosis. Useful work has been done by the authors on the radiographic appearances of the digestive tract before and after the administration of the drug. The patients chosen for investigation were those with high grades of spasm in the lower section of the bowel or the prepyloric zone. The results obtained were well controlled with a previous series of 1000 consecutive barium meal examinations in which atropine had been used to remove or control spasm or to observe its effect in apparently normal persons in this respect. Reproductions of radiographs show some of the effects observed. Proof was forthcoming of the powerful antispasmodic action of the drug, and the conclusion was reached that it is valuable to the radiologist in combating spasm. Further trials were made of its action in gall-stone colic and biliary dyskinesia; in the patients observed prompt relief was obtained, contrasting with the lack of improvement after atropine. Some relief was also obtained by women with premenstrual pain, but not with pain after the onset of the flow. In general the results were very satisfactory. One failure is worth noting, in the gastric crises associated with *tabes dorsalis*; this suggests that the cause of the pain is something remote from simple spasm of smooth muscle. Relief from dibutyline often lasted far beyond the period when its pharmacological activity should have dwindled or expired. This is explained by the authors by their assumption that once muscular spasm is relieved it is slow in recurring. The only side effects seen were dryness of the mouth and some affection of the accommodation of the eyes; these were slight only and did not last longer than twenty minutes or an hour. No tachycardia or alteration of blood pressure was found. One point about this drug is that it does not act when given by mouth; this is a definite disadvantage, but it appears that another useful synthetic preparation is now available for the treatment of abdominal pain due to spasm.

[1] *The American Journal of the Medical Sciences*, August, 1948.

## THE INTRAVENOUS ADMINISTRATION OF "BENADRYL HYDROCHLORIDE".

THE value of "Benadryl" in hay fever and urticaria is now well established, though it is not effective as a rule in asthma. The true appraisal of a drug's value is difficult, particularly when we deal with one having an antihistaminic or an antispasmodic effect, and when the latent period before the drug begins to act is considerable. In allergic states this assessment is far from simple, as there are numbers of extraneous as well as intrinsic influences that may affect the patient's clinical state. This is remarked on by Morris H. Rosenberg and Lester S. Blumenthal in a study of "Benadryl" given by the intravenous route.[1] They point out that if a medicament has a time interval of 30 to 60 minutes after administration before effect is produced there is natural doubt in some instances as to the part it has played in the patient's relief, but when relief follows rapidly, within a few minutes, and consistently does so, we are more impressed with its value. In their observations they used a solution of the drug in a strength of ten milligrammes per millilitre, and diluted this further to thirty millilitres. This weaker solution was given by intravenous drip, seven to twelve minutes being taken to administer ten milligrammes of the drug. Sometimes only ten millilitres of this dilute solution were employed, but up to fifty millilitres have been used at times.

Twenty-one patients with urticaria were treated, and of these nineteen had immediate relief from their itching. Many of them felt better after ten millilitres only of the solution had been run into the vein. A rather constant pattern was observed in the area affected by the injection; the trunk and back were first benefited, then the extremities, the hands and feet being reached last. A residual burning sensation was often experienced, due, it was thought, to irritation from scratching, but this too also disappeared by the time the injection was completed. Meanwhile the weals on the skin changed in appearance, blanching from within outwards, and finally they vanished inside an hour. The period of relief gained varied from three to eight hours. If itching then recurred oral dosage of the drug gave satisfactory relief. Similar phenomena have, of course, long been observed with the use of adrenaline, but "Benadryl" appears to be a better antihistaminic drug in practice. If relief was not obtained after the injection of thirty millilitres the administration was stopped. It is interesting that the two patients who failed to respond had urticaria following the use of penicillin in wax and oil. One other patient who did not respond to the "Benadryl" afterwards had a very good result from large sustained oral dosage, which made the authors think that they might sometimes have employed a larger intravenous dose with advantage. One patient with asthma was afforded immediate objective relief from one injection; two others were not. A miscellaneous collection of patients with conditions such as contact dermatitis, chickenpox, and other states vaguely classed as possibly allergic, like some joint conditions, were treated by the authors with results satisfactory in the former classes, but not so in the latter. Two patients with vasomotor rhinitis were instantly relieved.

Some observations were also made on the toxic effects. Other investigators have found a high proportion of reactions such as dizziness, weakness, headache and drowsiness, but the authors think these may have been due in part to the fact that the drug was injected almost undiluted. In the present series no severe reactions were encountered, but side effects, such as dizziness or sleepiness or both, were noted in eight out of 39 patients. One man had a chill, with headache and some pain low in the back. None of these effects were other than slight, and none lasted more than a few minutes.

The authors consider that they have established the effectiveness of "Benadryl hydrochloride" by this work, and are satisfied that its toxic effects are slight and of brief duration. The only side effect which is of real importance is drowsiness. It is already well known that this useful drug causes a certain degree of sleepiness in some people, and this introduces a possible risk in driving a motor-car, or in moving on foot in dense traffic. As absorption of any drug by mouth varies in speed, and as its excretion or destruction in the body is also subject to fluctuation, patients taking the drug should be cautioned about this possible effect.

[1] *The American Journal of the Medical Sciences*, August, 1948.

# Abstracts from Medical Literature.

## RADIOLOGY.

### Sarcoidosis.

ALFRED J. ACKERMAN (*American Journal of Roentgenology*, March, 1948) reports observations of nineteen cases of pulmonary sarcoidosis. The subjects showed practically no clinical evidence of disease and were detected usually in the course of routine examination. He states that the mediastinal and pulmonary lesions have fairly pronounced fluctuations characterized by regression of the enlarged nodes and dissemination and less conspicuous regression of the pulmonary infiltrations. These may appear as miliary, nodular, and occasionally confluent, patchy densities scattered over large areas of the pulmonary parenchyma. There is no definite correlation between the morphological changes and clinical symptoms produced by them. Absence of significant mediastinal adenopathy does not necessarily rule out pulmonary sarcoidosis or prove that these nodes are free from the disease. A previously existing adenopathy may have simply regressed sufficiently so that it is no longer recognizable. In view of the clinical experiences the prognosis in cases of pulmonary sarcoidosis should always be guarded.

### Hypertrophic Osteoarthropathy.

H. L. TEMPLE AND G. JASPIN (*American Journal of Roentgenology*, August, 1948) state that symptoms of joint pain and swelling simulating arthritis may be due to hypertrophic pulmonary osteoarthropathy. Radiological demonstrations of periosteal new-bone formation should lead to further investigation of the underlying primary disease. The most common site of the primary disease is within the pulmonary tract, although other systems may be involved. The most common condition is malignant growth of the lung. The ætiology of hypertrophic pulmonary osteoarthropathy has not as yet been determined.

### Giant Follicular Lymphadenopathy.

ERICH M. UHLMANN (*Radiology*, February, 1948) states that the condition known as giant follicular lymphadenopathy, while not uncommon, is still little known among the medical profession in general, and often is not correctly interpreted by pathologists; it offers many challenging aspects to the physician, the surgeon, the hæmatologist, the pathologist and the radiotherapist. The disease bears a strong resemblance to Hodgkin's disease and in most instances is diagnosed as such. Giant follicular lymphadenopathy is characterized by either localized or generalized enlargement of the superficial lymph nodes, often in conjunction with splenomegaly. The first enlargement seems frequently to be in the lymph nodes of the neck, but there is no preference for any particular site. Giant follicular lymphadenopathy may, in the initial stage, produce very little discomfort and so few symptoms that they may be considered insignificant by patients as well as physicians. The correct diagnosis can be made if the pathologist is familiar with the microscopic findings. It is an established fact that the disease, seemingly of benign nature, can develop into a true malignant condition such as leuchæmia, sarcoma, or Hodgkin's disease. Any one of these three diseases may follow the original giant follicular lymphadenopathy, and this may be taken as another sign of the close relationship between these different forms of so-called lymphoblastoma. Small amounts of irradiation will be sufficient in most instances to produce the disappearance of involved lymph nodes, but this does not represent a cure of the disease. There are indications, however, that if giant follicular lymphadenopathy is treated with large amounts of irradiation, such as are commonly used in the treatment of malignant lesions, the patients will remain free of symptoms for many years. It seems logical to treat giant follicular lymphadenoapthy from the very beginning as a potentially malignant disease, regardless of the fact that the microscopic findings may not warrant that diagnosis.

### Sclerosis of Bone in Gaucher's Disease.

F. WINDHOLZ AND S. FOSTER (*American Journal of Roentgenology*, August, 1948) call attention to the frequent presence of radiological signs of bone formation in the medullary cavity in cases of Gaucher's disease. The new formation of osseous tissue is not excessive and is similar in appearance to regenerative ossification in the surroundings of inflammatory lesions. It occurs, however, not only in bone structures adjoining absorptive changes, but also in parts of the medullary cavity in which no radiological signs of bone destruction are exhibited. Bone tissue is laid down in such cases in intercellular fibrous structures as a product of direct metaplasia of collagenous fibres. Such fibres are in abundance in late stages of the disease. Consequently, the presence of ossifications in the medullary cavity or in spongy areas indicates localized or general aging of the pathological tissues. In early manifestations no appreciable amount of fibres is formed. Therefore, pathological osteogenesis may be absent. X-ray signs of pathological ossification in Gaucher's disease may be of diagnostic significance. This occurs if newly formed bone tissue is laid down in areas situated about absorptive lesions and involves simultaneously more remote areas of the medullary cavity in which no destructive changes are evident.

### Diverticulosis of the Gall-Bladder.

ALFRED J. ACKERMAN (*American Journal of Roentgenology*, August, 1948) states that although, pathologically, diverticulosis has been shown to occur frequently in diseased gall-bladders, it is seldom demonstrated radiologically. This is not surprising if one considers that the small ducts, through which diverticula communicate with the lumen of the bladder, are often occluded, preventing the dye from entering the diverticula. Small stones within the diverticula may also prevent an adequate visualization, even if the gall-bladder itself should be demonstrated. These stones, when opaque, may be erroneously interpreted, because they appear to lie outside the visualized organ and do not seem to be related to it. The radiological characteristics of the diverticula are essentially similar to those in the intestinal tract or the urinary bladder. An inflammatory process of the gall-bladder accompanied by œdema and occlusion of the lumina of these "ducts" will in most instances prevent their recognition. The possibility of diverticulosis should be considered in the presence of small, irregularly distributed opacities in the region of the gall-bladder, particularly when the clinical history suggests disease of the biliary tract, and the distribution of the opacities corresponds with the contour of the gall-bladder.

### Calcareous Pancreatitis.

BERNARD S. EPSTEIN AND IVAN ISAACS (*Radiology*, August, 1948) state that one of the less frequent causes of upper abdominal pain sometimes disclosed by X-ray examination is pancreatitis as manifested by calcific shadows within the pancreas. These may occur as calculi within the ducts or as diffuse parenchymal infiltration, or both types may be coexistent. Diffuse parenchymal calcification of the pancreas is uncommon as compared with pancreatic lithiasis. While the causes of pancreatic calcification are not clearly understood, it is generally agreed that the chief predisposing factors include stasis, infection and inflammation. The clinical syndrome is most variable, and it is precisely this indeterminate and fluctuating train of events that prompts radiological investigation in most cases. Whenever doubt exists as to the cause of abdominal pain, the possibility of pancreatitis should be borne in mind, and proper radiological studies made to rule out pancreatic calcification. The rate at which pancreatic calcifications develop is not well known. In the case reported here, a slight but nevertheless appreciable increase in the calcific deposits occurred within a month, and ten months later there was a pronounced increase. There appears to be no clinical correlation between the initial appearance of the pancreatic calcification, the subsequent rate of development and the patient's complaints; patients with much calcification may have little discomfort.

### Iodinated Organic Compounds as Contrast Media.

GLENN E. JONES *et alii* (*Radiology*, August, 1948), using dogs as experimental subjects, have made comparisons of the secretion into the biliary tract of the following cholecystographic agents: o-(4-hydroxy-3,5-diiodobenzyl)-benzoic acid, iodoalphionic acid, tetraiodophenolphthalein, and phenoltetraiodophthalein. Administered orally, only the benzoic acid derivative consistently gave good visualization of the common duct. Given intravenously in the form of the sodium salts, all four compounds delineated certain of the hepatic ducts, the common duct, and finally the gall-bladder. The most rapid and complete delineation was obtained with the benzoic acid derivative, the ducts being visible ten minutes and the gall-bladder twenty minutes after the injection. Similarly, the duct system was outlined after cholecystectomy. This initial study of the secretion of cholecystographic media into the biliary ducts is largely of theoretical interest and does not lead to any immediate recommendations for refinement of clinical radiography. If it became possible to make cholangiograms, the radiological evaluation of and surgical attack on biliary tract diseases would be greatly expedited. This would be particularly true in the post-

cholecystectomy case in which partial or complete occlusion of the common duct is present from a calculus or inadvertent damage to the duct itself.

### Anomalies at the Foramen Magnum.

LEE A. HADLEY (*American Journal of Roentgenology*, April, 1948) states that certain congenital and acquired anomalies occurring at the *foramen magnum* may cause neurological symptoms. Congenital deformities such as atlanto-occipital fusion, occipital vertebra and *ossiculum terminale* usually cause symptoms by constriction of the *foramen magnum*. Basilar impression, an acquired distortion secondary to softening of the base of the skull, causes development of pressure within the cerebellar fossa by invagination of that part. Early operation offers promise of arresting the progress of the condition, although restoration of normal relationships is impossible. Because one of these conditions at the *foramen magnum* may be confused with multiple sclerosis, syringomyelia or other degenerative spinal cord disease, a survey film will be found desirable. The survey film is a lateral view of the cervical part of the spine with the head in anterior flexion. If the arch of the atlas is not fused to the occiput, it will separate from that bone in this position. A similar lateral survey film should be taken in all cases of torticollis or asymmetry of the head and neck. If a congenital anomaly of this type is discovered in a young child not yet showing symptoms, his parents should be acquainted with the possibilities and remain alert for the first appearance of neurological signs. These may not appear until the second or third decade.

## PHYSICAL THERAPY.

### Carcinoma of the Female Urethra and Vulva.

FRANZ BUSCHKE AND SIMEON T. CANTRIL (*Radiology*, August, 1948) disagree with the opinion that carcinoma of the urethra and vulva yields poor results from radiotherapy. The difficulty in treatment lies in the extreme sensitivity of the vulvar mucosa, so that adequate dosage may lead to severe reactions followed by a considerable degree of atrophy. Small carcinomata arising in the labia, clitoris or posterior commissure are certainly best treated by surgery, radiotherapy being reserved for the more advanced lesion and for all types of growth in the periurethral portion of the vulva and the urethra itself. The authors report eight cases of carcinoma of the vulva, in five of which the subjects have been free from disease for periods varying from seven to one and a quarter years. The dose given was 4000*r* to 4500*r* over twenty to twenty-six days, a current of 200 kilovolts being used filtered through one millimetre of copper and one millimetre of aluminium. The areas of the fields were from 20 to 35 square centimetres. Healing took forty-two to forty-five days to be completed on an average, and one patient only required admission to hospital. The authors state that lesions developing on leukoplakia are more resistant, have a poorer prognosis and are more suitable for vulvectomy. For carcinoma of the urethra, the authors consider that a dose of 5000*r* over twenty days (a current of 200 kilovolts being filtered through one millimetre of copper and one millimetre of aluminium) is at the upper limit of tolerance over a small field. The reaction is severe, but the final result in all three patients treated has been good. There is less deformity and disability than after surgery.

### Radiotherapy in Dermatology.

R. T. BRAIN (*The British Journal of Radiology*, October, 1948) discusses the physical and biological effects of irradiation, the quality of irradiation and the measurement of dosage. In the section dealing with clinical effects upon the skin, the difference between $\alpha$, $\beta$ and $\gamma$ irradiation is described. He states that malignant disease of the skin is treated by either 1500*r* after preliminary curettage or divided doses over seven to ten days. For ringworm of the scalp the Kienbock-Adamson five-point technique is used with a dose of 400*r* to each area. An experiment was performed to judge the effect of irradiation on skin treated previously by various types of common ointments, such as white precipitate ointment (2% mercury), Lassar's paste (20% zinc) and calamine lotion. With a dose of 400*r*, the skin treated with white precipitate ointment showed a little more reaction. Experiments also determined the absorption power of various ointments, and it was decided that for small doses, such as 50*r* to 150*r*, the clinical effect of medicaments on skin could be disregarded. The author describes "sedative X-ray therapy" as the giving of small doses to allay itching, particularly for the eczema of infants and small children. It is suggested that for pruritus and the itching dermatoses, a dose of 50*r* to 100*r* should rarely be exceeded, and for infantile eczema a dose of 30*r* over a wide field is often adequate. This is given to infants only when local treatment has failed and is not repeated under two weeks or on more than four occasions. *Herpes simplex*, which is recurrent, may respond to 150*r* repeated at three-week intervals for three doses.

### Treatment of Cancer of the Maxillary Antrum by Radium.

MARGARET C. TOD (*The British Journal of Radiology*, June, 1948) states that carcinoma of the antrum is a distressing disease and that the later stages are characterized by severe pain and deformity which may last for months before local extension releases the victim by death. A simple method of treatment is sought which promises a fair chance of cure in early cases and good palliation in later stages. The author reviews a series of 222 cases of tumours of the maxillary antrum, treated at the Holt Radium Institute between 1932 and 1941. The method of treatment now advised is, in its simplest form, merely a radium tube placed in the centre of the growth. In early years treatment consisted in most cases of surgical excision followed by insertion of a radium pack into the cavity. This method was moderately successful even in advanced cases, but the operative mortality was high (25% in the immediate post-operative period). A trial was then given to the insertion of the radium tube into the tumour mass without preliminary surgery. The author states that a zone of tissue surrounding the tumour is to be irradiated to tumour lethal dose, and, in order to obtain this, a necrotic dose must be given in the tumour itself. This procedure leads to no serious consequences as long as there is satisfactory drainage through the hole by which the radium was inserted. In addition, penicillin has done much to reduce the incidence of pain and sepsis. The tube containing 25 milligrammes of radium is pushed into the antrum through the canine fossa or occasionally through the palate and is held in position by a stay suture. A dose of 8000*r* to 10,000*r* is given over seven to ten days at a point two centimetres from the radium source. Occasionally for large tumours surgical interference is necessary later to enlarge the opening and clear out sloughs and dead bone. In a series of 100 cases treated by this method alone, a five-year survival of 38% in early cases and 13% in later cases was obtained. The author advises this method particularly for squamous-cell carcinoma of the antrum. Tumours of the mixed salivary type appear very radio-resistant, so that surgical excision is the main line of treatment. Lymphosarcomata occur occasionally and these are best treated by deep X-ray therapy. Wide fields are used, a dose of 3000*r* being given over three weeks. They do not respond satisfactorily to radium.

## PÆDIATRICS.

### Sclerema Neonatorum.

WILSON E. HUGHES AND MORTON L. HAMMOND (*The Journal of Pediatrics*, June, 1948) review the literature on *sclerema neonatorum* and report three additional cases, including the histological appearances in two cases. They point out that it is well established that the subcutaneous fat of infants with sclerema is essentially the same chemically as that of normal infants. In all infants, however, this fat differs from that in older people in that its oleic acid content is lower and so it tends to solidify more readily on chilling. The solidification point of the newborn's fat is much lower (22° to 25° C.) than the body temperature of any live baby. They admit, however, that the rectal or mouth temperature is not an accurate indication of the temperature of the skin and subcutaneous tissues. Moreover the subcutaneous tissue of a baby when chilled in the morgue is not as hard as the sclerematous tissue of a baby during life. Though chilling does not adequately explain the change, the authors feel that it is probably an important contributing factor. They state that babies with sclerema have often been of low vitality or dehydrated or have suffered some other grave condition such as sepsis, and suggest that a feature common to such babies is a condition analogous to shock with impaired peripheral circulation. This would lower the subcutaneous temperature and cause changes in cell metabolism that could produce the only significant histological finding. This finding is a great thickening of the collagen fibres of the connective tissue bands in the subcutaneous fat. The authors state that sclerema is a clearly defined entity, distinct from subcutaneous fat necrosis and œdematous states of the newborn. Treatment should be aimed at maintenance of body temperature and correction of dehydration, acidosis and shock. The administration of thyreoid extract warrants further trial.

# British Medical Association News.

## ANNUAL MEETING.

THE annual meeting of the Victorian Branch of the British Medical Association and of the Medical Society of Victoria was held at the Medical Society Hall, Albert Street, Melbourne, on December 1, 1948, Major-General F. Kingsley Norris, the President, in the chair.

### ELECTION OF OFFICE BEARERS AND MEMBERS OF COUNCIL.

The Medical Secretary announced that the Council had elected the following office bearers.

*President*: Dr. Douglas Thomas.
*Vice-Presidents*: Dr. Robert Southby and Dr. Roy F. Watson.
*Honorary Treasurer*: Dr. J. A. Cahill.
*Honorary Secretary*: Dr. Leonard Ball.
*Honorary Librarian*: Dr. Douglas Thomas.
*Chairman of Council*: Dr. H. C. Colville.

The Medical Secretary announced that the following had been elected members of the Council by the general body of members: Dr. Arthur Brown, Dr. Charles Byrne, Dr. John Dale, Dr. John Gowland, Dr. H. G. Furnell, Dr. Victor Hurley, Dr. H. Maxwell James, Dr. Leonard W. Johnston, Dr. J. H. Lindell, Professor P. MacCallum, Major-General F. Kingsley Norris, Dr. K. Smith, Dr. Robert Southby, Dr. D. J. Thomas.

The Medical Secretary announced that the following had been elected members of the Council by the subdivisions: Dr. L. Ball, Dr. M. H. Box, Dr. D. D. Brown, Dr. D. A. Carter, Dr. B. D. Fethers, Dr. P. Goodman, Dr. A. B. Hewitt, Dr. J. G. Johnson, Dr. A. B. McCutcheon, Dr. D. G. MacKellar, Dr. L. A. Neal, Dr. M. L. Powell, Dr. J. J. Searby, Dr. W. A. Sloss, Dr. G. Swinburne, Dr. R. F. Watson, Dr. G. R. Weigall, Dr. L. J. Westacott.

The Medical Secretary announced that the ex-officio members of the Council were: Dr. J. A. Cahill, Dr. H. C. Colville, Dr. F. L. Davies, Sir John Newman Morris, Dr. D. Roseby (Trustees of the Medical Society of Victoria), Dr. J. P. Major (Director, Australasian Medical Publishing Company, Limited).

The representative of the Victorian Medical Women's Society was Dr. Elizabeth McComas.

### ANNUAL REPORT OF THE COUNCIL.

The annual report of the Council which had been circulated among members was received and adopted on the motion of Dr. David Roseby, seconded by Sir John Morris. The report is as follows.

The Council of the Branch and the Committee of the Society present the sixty-ninth annual report of the Branch and the ninety-third of the Society.

#### Election.

At the annual meeting held last December the following members of the Council and of the Committee were elected: Dr. Arthur Brown, Dr. Charles Byrne, Dr. A. E. Coates, Dr. John Dale, Dr. H. G. Furnell, Dr. J. H. Gowland, Dr. J. S. Green, Dr. Victor Hurley, Dr. H. Maxwell James, Dr. L. W. Johnston, Professor P. MacCallum, Major-General F. Kingsley Norris, Dr. R. Southby and Dr. Douglas Thomas.

The following were elected to represent the subdivisions: Dr. L. H. Ball, Dr. M. H. Box, Dr. D. D. Browne, Dr. D. A. Carter, Dr. B. D. Fethers, Dr. P. Goodman, Dr. A. B. Hewitt, Dr. J. G. Johnson, Dr. A. B. McCutcheon, Dr. D. G. MacKellar, Dr. L. A. Neal, Dr. M. L. Powell, Dr. J. J. Searby, Dr. W. Sloss, Dr. G. Swinburne, Dr. R. F. Watson, Dr. G. R. Weigall, Dr. L. J. Westacott.

Under Rule 9 of the Branch, Council elected Dr. Elizabeth McComas, who was nominated by the Victorian Medical Women's Society.

The following are ex-officio members: the trustees of the Medical Society of Victoria, Dr. J. A. Cahill, Dr. H. C. Colville, Dr. F. L. Davies, Sir John Newman Morris and Dr. D. Roseby, and the Director for Victoria of the Australasian Medical Publishing Company, Limited, Dr. J. P. Major.

*Cooption*: Dr. J. H. Lindell and Dr. Kenneth Smith were coopted members of the Council.

The Council elected the following office bearers:

*President*.—Major-General F. Kingsley Norris.
*Vice-Presidents*: Dr. Douglas Thomas and Dr. John S. Green.
*Chairman of Council*: Dr. H. C. Colville.
*Honorary Secretary*: Dr. R. F. Watson.
*Honorary Treasurer*: Dr. J. A. Cahill.
*Honorary Librarian*: Dr. Douglas Thomas.

The executive consisted of the president, the immediate past president, Dr. A. E. Coates, and other office bearers.

Following the death of Dr. John S. Green, Dr. Robert Southby was elected a vice-president.

#### Attendances at Council Meetings.

Thirteen meetings of the Branch Council were held, the following showing the attendances:

| | | | |
|---|---|---|---|
| Dr. M. H. Box | 13 | Dr. Elizabeth McComas | 9 |
| Dr. George Swinburne | 13 | Dr. A. E. Coates | 8 |
| Dr. H. C. Colville | 12 | Dr. B. D. Fethers | 8 |
| Major-General F. K. Norris | 12 | Dr. John S. Green[1] | 8 |
| Dr. Robert Southby | 12 | Dr. J. P. Major | 8 |
| Dr. R. F. Watson | 12 | Dr. L. A. Neal | 8 |
| Dr. G. R. Weigall | 12 | Dr. D. Roseby | 8 |
| Dr. Charles Byrne | 11 | Dr. L. Ball | 7 |
| Dr. J. A. Cahill | 11 | Dr. Kenneth Smith | 7 |
| Dr. F. L. Davies | 11 | Dr. A. B. McCutcheon | 6 |
| Dr. J. G. Johnson | 11 | Dr. M. L. Powell | 6 |
| Dr. Arthur Brown | 10 | Dr. J. H. Lindell | 6 |
| Dr. D. D. Browne | 10 | Sir John Newman Morris[2] | 5 |
| Dr. John Dale | 10 | Dr. A. B. Hewitt | 4 |
| Dr. Victor Hurley | 10 | Dr. P. Goodman | 3 |
| Dr. Douglas Thomas | 10 | Dr. John Gowland[2] | 3 |
| Dr. D. A. Carter | 9 | Professor P. MacCallum | 2 |
| Dr. H. G. Furnell | 9 | Dr. L. J. Westacott | 2 |
| Dr. H. Maxwell James | 9 | Dr. D. G. MacKellar | 1 |
| Dr. Leonard W. Johnston | 9 | Dr. J. J. Searby | 1 |
| | | Dr. W. A. Sloss | 1 |

[1] Died during the year.
[2] Granted leave of absence during the year.

The highest attendance at any one meeting was 12, and the average attendance was 26.

#### Appointment of Subcommittees.

The following subcommittees were appointed by the Council at the beginning of the year (the first-named acting as convener of the subcommittee):

*Ethics*.—Dr. Major, Dr. Davies, Dr. Green, Sir John Newman Morris, Dr. Smith and the executive.

*Finance, House and Library*.—Dr. Cahill, Major-General Norris, Dr. Smith and Dr. Thomas.

*Legislative*.—Dr. Dale, Dr. Colville, Dr. Davies, Dr. Gowland, Dr. Green and Dr. Watson.

*Organization*.—Dr. Swinburne, Dr. Cahill, Dr. Colville, Dr. Ball, Dr. Box, Dr. Brown, Dr. Byrne, Dr. Dale, Dr. Fethers, Dr. Furnell, Dr. Gowland, Dr. Green, Dr. Hurley, Dr. J. G. Johnson, Dr. L. W. Johnston, Dr. McComas, Dr. McCutcheon, Dr. Neal, Dr. Roseby, Dr. Powell, Dr. Smith, Dr. Southby, Dr. Watson, Dr. Weigall and representatives of the country subdivisions.

*Science*.—Professor MacCallum, Dr. Coates, Dr. L. W. Johnston, Dr. Lindell, Major-General Norris, Dr. Powell and Dr. Watson.

*Hospital*.—Dr. Southby, Dr. Ball, Dr. Coates, Dr. Colville, Dr. Fethers, Dr. Hurley, Dr. James, Dr. Lindell, Dr. Neal, Dr. Smith, Dr. Watson and Dr. Weigall.

*Correspondence*.—Dr. Colville and Dr. Watson.

*Workers' Compensation*.—Dr. Ball, Dr. Byrne, Dr. Colville and Dr. Gowland.

*Publicity*.—Dr. Dale, Dr. Green, Dr. Thomas and the Medical Secretary.

*Rehabilitation*.—Dr. Johnston, Dr. Furnell, Dr. Hurley, Major-General Norris, Professor MacCallum, Dr. Smith, Dr. Thomas, Dr. Swinburne and Dr. Weigall.

#### Appointments and Nominations.

*Trustees of the Medical Society of Victoria*.—Dr. J. A. Cahill, Dr. H. C. Colville, Dr. F. L. Davies, Sir John Newman Morris and Dr. D. Roseby.

*Central Council, British Medical Association*.—Dr. J. H. Anderson.

*Federal Council*.—Dr. Charles Byrne, Dr. H. C. Colville and Dr. Victor Hurley.

*British Medical Agency*.—Directors: Dr. J. A. Cahill (chairman), Major-General F. K. Norris, Dr. G. Robinson and Dr. C. H. Dickson. *Manager: Mr. G. Feely.*

*British Medical Insurance Company of Victoria*.—Directors: Sir John Newman Morris (chairman), Dr. J. A. Cahill, Dr.

Victor Hurley, Dr. W. W. S. Johnston, Dr. L. S. Latham, Major-General F. K. Norris. Secretary: Mr. J. M. Ford.

*Victorian Correspondent, "The Medical Journal of Australia".*—Dr. H. Boyd Graham.

*Victorian Correspondent, "British Medical Journal".*—Dr. H. Boyd Graham.

*Victorian Bush Nursing Association.*—Dr. Elizabeth McComas.

*Hospital Benefits Association.*—Dr. J. A. Cahill, Dr. C. H. Dickson, Major-General F. K. Norris and Dr. D. Roseby.

*Electoral Board, Medical Staffing of Base Hospitals.*—Dr. J. P. Major and Major-General F. K. Norris.

*Medical Eye Service of Victoria.*—Dr. T. a'B. Travers.

*Free Kindergarten Union.*—Dr. H. Boyd Graham.

*Victorian Baby Health Centres' Association.*—Dr. H. Boyd Graham.

*Melbourne University Union.*—Graduates' Section: Dr. H. Douglas Stephens.

*Victorian Institute of Hospital Almoners.*—Sir John Newman Morris.

*Lord Mayor's Fund.*—Sir John Newman Morris.

*Victorian Council for Mental Hygiene.*—Dr. John Dale and Dr. A. P. Derham.

*Melbourne Permanent Post-Graduate Committee.*—Professor P. MacCallum, Dr. J. P. Major and Dr. B. Milne Sutherland.

*Medical Officers' Relief Fund (Federal).*—Advisory Committee: Dr. J. A. Cahill, Dr. F. L. Davies and Dr. W. G. D. Upjohn.

*Federal Medical War Relief Fund.*—Advisory Committee: Dr. J. A. Cahill, Dr. F. L. Davies and Dr. W. G. D. Upjohn.

*Legacy Fund.*—Dr. J. A. Cahill, Dr. A. E. Coates and Major-General F. K. Norris.

*Australian Aerial Medical Service.*—Sir John Newman Morris.

*Nurses' Board.*—Dr. J. W. Johnstone and Dr. W. W. S. Johnston.

*Dietetic Association of Victoria.*—Dr. John Dale.

*Committee of Lord Mayor's Country Children's Holiday Camp.*—Dr. T. L. Tyrer.

*Society for Crippled Children.*—Dr. H. Boyd Graham.

*Anti-Cancer Council of Victoria.*—Dr. Victor Hurley, Dr. J. E. Clarke and Dr. Henry Searby.

*Opticians' Registration Board.*—Dr. T. a'B. Travers and Dr. A. H. Joyce.

*City Electoral Roll.*—Dr. C. H. Mollison.

*Masseurs' Registration Board.*—Dr. C. H. Hembrow and Dr. F. May.

*National Safety Council of Australia.*—Dr. John Gowland.

*Contract Practice Subcommittee, Federal.*—Dr. C. H. Dickson.

*Trustees, Income Insurance Fund.*—Dr. H. C. Colville, Dr. F. L. Davies, Dr. J. P. Major and Dr. B. Milne Sutherland.

*Joint Insurance Adjudication Committee.*—Dr. H. Searby, Dr. D. Roseby and Dr. Balcombe Quick.

*National Committee of British Commonwealth Collection of Microorganisms.*—Professor S. D. Rubbo.

*Provisional Council of Speech Therapy.*—Dr. Robert Southby.

*Committee on Industrial Accident Statistics (Standards Association of Australia).*—Dr. John Gowland.

*Annual Representative Meeting, British Medical Association, London, 1948.*—Dr. John Gowland.

### Branch Convocation.

The following were elected for the year 1948: Melbourne Central: Dr. C. J. O. Brown, Dr. E. E. Dunlop, Dr. C. H. Fitts, Dr. H. Boyd Graham, Dr. L. Lloyd Green, Dr. J. G. Hayden, Dr. L. S. Latham, Dr. T. G. Millar, Dr. G. N. Morris, Dr. G. P. O'Day, Dr. H. Phillips, Dr. G. Springthorpe, Dr. M. Tallent. South-Eastern Suburban: Dr. J. Adamson, Dr. C. Evans, Dr. G. Foreman, Dr. E. Kirsner, Dr. J. K. D. Mackenzie, Dr. L. Nicholson, Dr. R. M. Shaw, Dr. J. Glyn White. Eastern Suburban: Dr. G. W. Ashton, Dr. W. L. Carrington, Dr. A. S. Ferguson, Dr. K. Hallam, Dr. W. E. Hewitt, Dr. H. Judkins, Dr. E. E. McKay, Dr. L. P. Wait, Dr. G. Watters. Western Suburban: Dr. L. Gurry, Dr. L. Joel, Dr. J. Edgar Smith. North-Eastern Suburban: Dr. M. Ashkanasy, Dr. A. Ley (junior), Dr. N. T. Schafer. Northern Suburban: Dr. W. F. Brownell, Dr. J. E. Dunn, Dr. S. L. Fredman, Dr. J. O'Keefe, Dr. K. Ratten. Southern Suburban: Dr. M. H. Mailer, Dr. L. Middleton, Dr. T. O. Sayle, Dr. W. E. Spring, Dr. H. F. Tucker, Dr. C. Turner. South Central Suburban: Dr. R. D. Aitchison, Dr. A. I. Green, Dr. Harley Grover, Dr. A. McQ. Thomson, Dr. C. Worch. Ballarat: Dr. E. Guymer, Dr. T. G. James. Bendigo: Dr. J. W. Cook, Dr. A. E. Lincoln, Dr. P. R. Slater. Geelong: Dr. R. L. Fulton, Dr. D. A. Kidd. Goulburn: Dr. R. O. Mills. Gippsland: Dr. J. M. Andrew, Dr. D. Fitzpatrick. North-Western Country: Dr. B. H. Jones, Dr. J. E. Thomas. North-Eastern Country: Dr. H. J. Ennis. South-Western Country: Dr. W. R. Angus, Dr. K. F. O'Donnell.

### Membership Roll.

The number of members on the roll at October 31, 1948, was 2052, which is 42 more than last year. One hundred and six members were added (49 by election, 6 members were reinstated by payment of arrears, and 51 were transferred from other States) and 64 names were removed (23 by death, 30 by transfer to other States, 9 by resignation, and 2 members allowed their subscriptions to fall into arrears).

Honorary medical members number 25.

Honorary student associates number eight.

Death of the following members and former members is recorded with regret: Dr. C. J. Alsop, Dr. Mary Bell, Dr. F. J. Bonnin, Dr. Ian T. Cameron, Dr. Arthur Chenery, Dr. Reuben Collins, Dr. B. S. Cowen, Dr. J. C. Craig, Dr. Marcel Crivelli, Dr. Victor H. L. Dunn, Dr. J. McF. Fone, Dr. Norman E. Gibbs, Dr. O. B. Goyen, Dr. F. A. Gray, Dr. John S. Green, Dr. John Grieve, Dr. J. L. Henderson, Dr. C. S. B. Langdon, Dr. Alexander Lyons, Dr. F. E. McAree, Dr. A. T. McLean, Dr. H. D. B. Miller, Dr. W. F. Orr, Dr. C. N. Raphael, Dr. T. C. Reeves, Dr. Colin C. Reid, Dr. Margaret H. Robertson, Dr. Henry Smith, Dr. Julian Smith, Dr. A. M. Wilson.

After the death of Dr. McAree the following minute was recorded:

> The Council of the Victorian Branch of the British Medical Association records with regret the death of Dr. Francis Edward McAree, who was a member of the Branch Council from 1924 until his retirement in 1947. Throughout those years he also acted as honorary secretary of the South Central Suburban Subdivision and his services to the Council and the subdivision will long be remembered.

After the death of Dr. John S. Green the following minute was recorded:

> The Council of the Victorian Branch of the British Medical Association records with regret the death of John Sydney Green, M.D., B.S., D.G.O., F.R.C.O.G., F.R.A.C.S., who was a member of the Council without interruption from 1932 and who was, at the time of his death, a vice-president of the Branch. As a member of the Branch Council and as a leader in his specialty of obstetrics and gynæcology, Dr. Green rendered valuable service to his medical colleagues and to the people of Victoria, and the sympathy of the Council is extended to his widow and relatives.

### War Memorial.

The names of Victorian doctors who died as the result of service in the war of 1939-1945 have been cast in bronze and attached to the base of the War Memorial standing in the foyer of the Medical Society Hall.

### Congratulations.

During the year the Council had pleasure in conveying congratulations to Professor F. M. Burnet on his award of the gold medal of the Royal Society, to Dr. C. A. Griffiths on his election as a Fellow of the Royal College of Surgeons of England, to Sir John Newman Morris on his being created a Knight Bachelor, and to Major-General F. Kingsley Norris on his appointment as Director-General of Medical Services and as Honorary Physician to His Majesty the King.

The Branch Council passed the following resolution on the completion of twenty-five years of service by Dr. Archdall as Editor of THE MEDICAL JOURNAL OF AUSTRALIA:

> That Council's congratulations and best wishes be sent to Dr. Archdall on his having completed twenty-five years as Editor[1] of THE MEDICAL JOURNAL OF AUSTRALIA and for the very high standard the journal has achieved and maintained during his editorship.

[1] *The period of twenty-five years was spent as a member* of the editorial staff, appointment as Editor being made in 1930.—EDITOR.

### The Stawell Memorial Prize.

Acting on the recommendation of the examiners, the trustees of the Stawell Memorial Prize did not award the prize for 1947.

### Australasian Medical Congress, Sixth Session, Perth, August 15 to 21.

The Sixth Session of Congress, which was attended by one hundred and two members from Victoria, was an outstanding success and Council had pleasure in forwarding its congratulations to the Western Australian Branch.

### Entertainment.

In August the Council held a late afternoon party for Mr. E. H. M. Luke, F.R.C.S., the Chairman of the Council of the New Zealand Branch of the British Medical Association, who was passing through Melbourne on his return to New Zealand after attending the congress in Perth.

Following their registration by the Medical Board of Victoria the 1948 medical graduates were entertained by the Branch Council at afternoon tea.

### Golf Tournament.

The ninth annual golf tournament of the Branch was held on November 26, 1947, at the Royal Melbourne Golf Club, East Course. The Championship Cup (The Weigall Cup) was won by Dr. D. Zacharin; Dr. J. R. Taylor and Dr. D. Zacharin tied in the Handicap Cup (The Roseby Cup) event; and the spoon competition was won by Dr. R. Bartram, Dr. Heyworth Watson and Dr. D. Zacharin.

### Gifts.

At the beginning of the year Professor Arthur Amies presented the office with an electric clock in appreciation of the facilities granted the Dental College for the holding of lectures in the Medical Society Hall. In June the British Medical Insurance Company of Victoria presented the Medical Society of Victoria with a sound film projector, and expressed the wish that it should be made available to such bodies as the Melbourne Permanent Post-Graduate Committee, the honorary medical and surgical staffs of public hospitals and the Royal Australasian Colleges of Surgeons and Physicians.

In August the Branch accepted custody of a portrait of Major-General S. R. Burston by W. A. Dargie, presented to him by officers who served under his command, and the portrait has been hung in the hall of the Medical Society.

### Meetings of the Branch.

The following Branch meetings were held in Melbourne:

February: "Aspects of Medical Life in the Islands", by Dr. Lindsay Verrier (Colonial Medical Service).

March: No meeting was held in March owing to the centenary celebrations of the Royal Melbourne Hospital.

April: "Uses of the Artificial Radioactive Elements for Investigation and Treatment", by Dr. R. Kaye Scott in association with Dr. C. E. Eddy, Director of the Commonwealth X-Ray and Radium Laboratory.

May: The Sixth Embley Memorial Lecture, "Anæsthesia and the Role of the Anæsthetist in Surgery of the Thyreoid Gland", by Dr. W. I. T. Hotten, of Sydney.

June: "Facilities for Post-Graduate Study Abroad", by Major-General F. Kingsley Norris, Dr. S. F. Reid, Dr. H. B. Kay, Dr. Roderick Andrew and Dr. T. Steel.

July: Owing to the illness of Professor W. E. Agar, who was to have spoken on "Heredity and Disease", the July Branch meeting was cancelled.

August: "Medico-Legal Problems Based on Experiences at the City Morgue", by Dr. Keith Bowden.

September: No Branch meeting was held in September because of the lectures being given by Professor Spence.

October: The Fifteenth Sir Richard Stawell Oration, "Science and Politics", by the Right Honourable Sir John Latham.

November: Symposium on "Workable Methods of Obstetrical Analgesia and Anæsthesia in Hospital and Domiciliary Practice", by Acting Professor J. W. Johnstone, Dr. Roberts Donaldson, Dr. Ramsay Warden, Dr. Margaret McClelland, Dr. R. M. Rome, Dr. James Buchanan and Dr. Ronald Alder.

The following clinical meetings and demonstrations were held:

May: Alfred Hospital.

July: Saint Vincent's Hospital.

September: Pathology Department, University of Melbourne.

October: Women's Hospital.

November: Bacteriology Department, University of Melbourne.

The following country meetings were held, at which, in addition to clinical demonstrations, the following lectures were delivered:

May: Mooroopna: "Psychiatry in General Practice", by Dr. A. J. M. Sinclair.

July: Warragul: "Clinical Aspects of Leuchæmias", by Dr. W. F. Ferguson.

November: Ballarat: The Second Fetherston Memorial Lecture, "Infant Loss in Childbirth: A Challenge to the Medical and Nursing Professions", by Dr. W. Ivon Hayes.

### Country Branch Meetings and Clinical Meetings.

During the year very successful week-end meetings were held at Mooroopna, Warragul and Ballarat. The Branch Council expresses its appreciation and thanks to the committees and honorary secretaries of subdivisions for the excellent arrangements made for the conduct of the meetings, to the wives of members of the subdivisions for their kindnesses and hospitality to visiting members and their wives, and to the committees of base hospitals for the provision of facilities.

Council also expresses its appreciation and thanks to the staffs of the Alfred Hospital, the Women's Hospital, Saint Vincent's Hospital and the pathology and bacteriology departments of the University of Melbourne for arranging very successful clinical meetings and demonstrations during the year.

### Special Meetings of the Branch.

During the year two special meetings of the Branch were held, one on February 4 to alter the rule in relation to subscription rates, and another on May 21 to alter the dates in the rule relating to the election of Council members and the rule regarding the election of Federal Council representatives.

### Business of Council.

*The Pharmaceutical Benefits Act*, 1947, was proclaimed to come into operation on June 1, 1948, no notice being taken by the Government of the reiterated objections of the medical profession to the legislation in its present form, and the publication of regulations under the act made the measure still more unacceptable to the medical profession. The result has been that very few doctors are writing prescriptions for free medicine in accordance with the act, and the vast majority are declining to cooperate in a scheme which is unacceptable. The Minister for Health, Senator McKenna, has been informed that in the opinion of the Federal Council the cooperation of doctors could be secured under the following conditions: (i) all drugs in the British Pharmacopœia in any combination to be free, together with a mutually agreed upon list of valuable preparations outside the British Pharmacopœia, and (ii) the use of private prescription forms in duplicate, provided no penalty attaches to the use of such forms. The Federal Council has also offered its full cooperation to control extravagant prescribing.

It has recently been announced by the Federal Government that it proposes to proceed with its plans to provide a complete medical service to every individual in Australia without cost to the individual beyond the cost of taxation, but the methods by which this scheme is to be carried into effect are not known. It is, however, the opinion of the Branch Council that no scheme would be acceptable to the medical profession unless it embodied the following three principles: (i) an acceptable system of administration, (ii) no contract between doctor and a governmental authority, (iii) payment on a fee-for-service basis.

Following the passage of the *Hospitals and Charities Act*, 1948, the Hospitals and Charities Commission has been established as a successor to the Charities Board of Victoria, and the Branch is fortunate in that Dr. Roy F. Watson has been appointed as the medical member of the commission.

During the year, after several conferences with the Friendly Societies' Association of Victoria, a new Common Form of Lodge Agreement has been arranged and will come into operation in the near future. Under that agreement, the capitation rates will be 36s. in the metropolitan area (including Ballarat, Bendigo and Geelong) and 44s. elsewhere in Victoria, provision being made for adjustment of those rates triennially in accordance with variations in the cost-of-living index figure.

Following representation from the Friendly Societies' Association of Victoria, it was resolved by Council: "That,

when an applicant for lodge membership presents himself to a lodge medical officer, no effort should be made to direct him to a different benefit society; and no distinction should be made between single and married applicants as regards acceptance", and that resolution was circulated to members in the monthly notice paper for October.

Discussions are also proceeding with representatives of the Fire and Accident Underwriters' Association of Victoria in reference to an increase in the fees payable for attendance on "workers" coming within the provision of the *Workers' Compensation Acts*.

Representations were made to the Charities Board of Victoria that the regulations under the *Hospitals and Charities Act* should be amended to enable members of the honorary medical staffs of public hospitals to claim fees for services rendered to persons entitled to compensation for their injuries, particularly those benefiting under the provisions of the *Workers' Compensation Acts* and those receiving monetary compensation for motor-car accidents.

By an amendment to the *Coroners Act* the State Government during the year acceded to the request of this association that fees payable to medical witnesses in the Coroner's Court and for the performance of post-mortem examinations at the direction of the coroner should be increased, those fees now being £2 2s. for witnesses and £3 3s. for post-mortem examinations.

The question of conditions of service of medical practitioners providing medical care for children under the control of the Children's Welfare Department has, during the year, been under discussion with the authorities concerned and a satisfactory settlement is anticipated.

It is regretted that renewed representations to the City Council seeking consideration for members in relation to the parking of their motor-cars have been unsuccessful.

The subscription of £737 to the Food for British Doctors' Fund was used in dispatching 800 parcels to doctors and doctors' widows in Great Britain, and many hundreds of appreciative letters have been received in the Branch office from the recipients of the parcels.

The National Society of Chiropodists was added to the list of bodies to which members may lecture without first obtaining permission under the rules of the Branch.

An innovation during the year was the holding in April of an open meeting of Council, to which members were invited as spectators. Those who attended expressed appreciation of the action taken.

In the above no reference has been made to the very large volume of business arising from the activities of the Federal Council which was considered by the Branch Council, the ultimate decisions concerning which will be found in the reports of the meetings of the Federal Council.

In addition, a great many matters were dealt with by the subcommittees and the executive of the Branch Council.

### Federal Council.

The Federal Council met in Melbourne in March and in Perth in August, and full reports of the proceedings of the meetings appeared in THE MEDICAL JOURNAL OF AUSTRALIA of May 1 and September 18, 1948. In addition, a special meeting was held in Sydney in May.

On the termination of Dr. F. L. Davies's membership of the Federal Council, appreciation of his services was recorded in the following special minute passed by the Branch Council:

> On his retirement from the Federal Council of the British Medical Association in Australia at the end of 1947, Dr. Frank L. Davies, who was elected as a Victorian Branch representative to the Federal Committee in 1929, will have served the Branch as a member of that committee and later as a member of the Federal Council for nineteen years. The Branch Council records its deep appreciation of Dr. Davies' unflagging services to the Branch and to the profession in general. His wide experience and intimate knowledge of medical problems have at all times made his work of the utmost value.

### Reports of Subdivisions.

#### *Metropolitan.*

*Western.*—Office bearers: Chairman, Dr. M. H. Box; Honorary Secretary, Dr. Donald D. Coutts. During the year clinical meetings have been held at the Williamstown and District General Hospital. These have been attended by members from Footscray, Essendon and from other subdivisions. The Hospital Committee and the Matron have arranged supper on the occasions when the lectures have been given and this has helped to make the meetings both instructive and social in nature.

The following meetings were held:

February 13: Lecture by Dr. R. G. Worcester on "Obstetrical Emergencies".

May 12: Lecture by Dr. Morris Davis on "Estimation of Cardiac Efficiency".

August 18: Lecture by Dr. Norman Harry on "Recent Advances in the Treatment of Goitre".

On May 24, 1948, a general meeting of the Western Suburban Subdivision was held at the Mechanics Institute, Footscray, to discuss the provisions of *The Pharmaceutical Benefits Act*. Forty-five members of the subdivision attended and fourteen apologies were received. A motion that the members of the subdivision supported the action of the Federal and State Councils of the British Medical Association to the full in regard to *The Pharmaceutical Benefits Act* was carried with two dissentients.

DONALD D. COUTTS,
Honorary Secretary.

*Eastern.*—Office bearers: Chairman, Dr. W. E. Hewitt; Honorary Secretary, Dr. Keith H. Hallam. Meetings during the past year have been confined to discussions of *The Pharmaceutical Benefits Act*. The result of these discussions revealed a whole-hearted determination not to be associated with the implementation of the act in its present form and a sense of gratitude to the leaders of the profession for their guidance, particularly to Dr. Colville, chairman of the Branch Council and Federal Council delegate, and to the Medical Secretary, Dr. C. H. Dickson, for his exposition of principles.

The office bearers for the ensuing year are: Chairman, Dr. Roy Bartram; Honorary Secretary, Dr. H. J. Hosking.

KEITH H. HALLAM,
Honorary Secretary.

*Melbourne Central.*—Office bearers: Chairman, Dr. A. E. Coates; Honorary Secretary, Dr. George Swinburne. A special meeting was held at the Medical Society Hall on May 24, 1948, to discuss *The Pharmaceutical Benefits Act*, 1947, and sixty-three members were present. After a free discussion the following resolution was carried unanimously:

> That this meeting wholeheartedly supports the Federal Council in its handling of the situation with regard to *The Pharmaceutical Benefits Act*, 1947.

GEORGE SWINBURNE,
Honorary Secretary.

*Southern.*—Office bearers: Chairman, Dr. Norman L. G. Wilson; Honorary Secretary, Dr. H. F. Tucker. On May 28, 1948, a meeting of the subdivision was held to discuss *The Pharmaceutical Benefits Act*, at which there was an excellent attendance. The meeting was addressed by Dr. Dickson, following which there was a general discussion and the following resolution was unanimously passed:

> We, the general practitioners of the Southern Suburban Subdivision, resolve that we will not use the formulary or duplicate prescription forms supplied by the Government.

H. F. TUCKER,
Honorary Secretary.

*South-Eastern.*—Office bearers: Chairman, Dr. E. Kirsner; Vice-Chairman, Dr. D. Pryde and Dr. J. Gibson; Honorary Secretary, Dr. B. D. Fethers. The annual meeting of the subdivision was held on May 27, 1948, and about sixty members were present. Wholehearted and unanimous support was voted to the Branch Council in its stand with regard to *The Pharmaceutical Benefits Act*. No social activities were arranged for the year.

B. D. FETHERS,
Honorary Secretary.

*Northern.*—In October, 1947, sectional meetings of the subdivision were held at Preston, Coburg and Heidelberg. These meetings were fairly well attended and at each an informative address was delivered by the Branch Medical Secretary dealing with all the various aspects and implications of the Federal Government's *Pharmaceutical Benefits Act*. At all meetings resolutions were carried expressing unanimous approval of the policy to be adopted by the Branch Council if and when the act was promulgated. A general meeting of the whole subdivision was held in the Medical Society Hall in May and was fully representative, the attendance representing more than 80% of those engaged in active practice within the subdivision. The principal addresses were delivered by the Medical Secretary and Dr. Charles Byrne, and after several members had spoken a

resolution was passed by which every member present pledged himself to loyally support the action of the Federal Council in demanding certain fundamental alterations from the Federal Government before it would recommend cooperation with the Government in implementing *The Pharmaceutical Benefits Act*.

LEO A. NEAL,
Honorary Secretary.

*South Central.*—Office bearers: Chairman, Dr. D. C. Worch; Honorary Secretary, Dr. J. G. Johnson. A meeting of the subdivision was held on May 27, 1948, to discuss *The Pharmaceutical Benefits Act*. After much discussion all the members present except three indicated that they would refuse to cooperate with the Government. A few days later, however, two of the three dissentients informed the Honorary Secretary that they would stand with the other members in opposing the act. No other meeting of the subdivision has been held this year, but the annual meeting will be held within the next few weeks.

GAVIN JOHNSON,
Honorary Secretary.

*Country.*

*Geelong.*—Office bearers: Chairman, Dr. H. Roland; Honorary Secretary, Dr. M. W. Morris. The activities of the subdivision in the past year have been confined largely to the discusion of local matters and *The Pharmaceutical Benefits Act*. Four meetings have been held, with well sustained interest and with an average attendance of twenty-three out of a total of thirty-five subdivisional members actually resident in Geelong.

A special meeting to discuss the implications of *The Pharmaceutical Benefits Act* resulted in full attendance of Geelong members and unanimous vote not to support the measure in its present form, and this attitude was further emphasized by newspaper advertisements and statements, to which were appended the signatures of all Geelong doctors.

MURRAY W. MORRIS,
Honorary Secretary.

*South-Western.*—Office bearers: Dr. J. Morlet, who was Chairman at the beginning of the year because of his retirement from practice, resigned this office in February, and Dr. B. Rosse Woods was elected Acting Chairman; Honorary Secretary, Dr. F. J. Hetherington.

At the August meeting held at Koroit, Dr. S. W. Williams lectured on "Streptomycin and other Drugs in Pædiatrics". A week-end course arranged by the Melbourne Permanent Post-Graduate Committee was held at Hamilton in November, 1947, and this was well attended and much appreciated. Lectures were delivered by Dr. Ian Wood ("Jaundice"), Mr. W. Hailes ("Management of a Case Suffering from Retention of Urine"), Dr. Byron Stanton ("What is Your Prescribing Problem?") and Dr. W. Ivon Hayes ("The Toxæmias of Pregnancy"). Dr. C. H. Dickson spoke on medico-political matters, including *The Pharmaceutical Benefits Act*. The February meeting was held at Portland, when Dr. R. Andrew spoke on "Recent Advances in Gastro-Intestinal Disorders", and the hypodermic needle factory was inspected. In May Dr. V. L. Collins lectured on "Recent Advances in Pædiatrics" at Terang. Also in May a special meeting was held at Warrnambool to discuss *The Pharmaceutical Benefits Act*, and members were unanimous in supporting the attitude of the Federal Council in this matter. The July meeting was held at Camperdown, when Dr. A. J. M. Sinclair spoke on "Signposts in Mental and Nervous Disorders".

Meetings were well attended throughout the year, especially those held at central points in the subdivision.

F. J. HETHERINGTON,
Honorary Secretary.

*Gippsland.*—Office bearers: Chairman, Dr. J. M. Andrew; Honorary Secretary, Dr. David I. Fitzpatrick.

A post-graduate week-end was held at Sale on April 10 and 11, when twelve members attended a most instructive course of lectures.

A meeting of the Branch was held at Warragul on July 17, the afternoon session taking the form of a clinical meeting at the Warragul Hospital, and at night Dr. W. F. Ferguson gave an excellent paper on "Clinical Aspects of Leuchæmias". The large attendance of city members was very pleasing to local members. The hospital provided hospitality to visitors.

DAVID I. FITZPATRICK,
Honorary Secretary.

*Bendigo.*—Office bearers: Chairman, Dr. C. Stanley; Vice-Chairman, Dr. J. Gorman; Honorary Secretary, Dr. Warwick Rosenthal.

During the year general meetings of the subdivision have been held and reports on the discussions of the Branch Council were supplied by our Council representative, Dr. P. Goodman. Several meetings of the clinical section of the subdivision have been held at the Bendigo Base Hospital and interesting lectures given by local members were well attended.

WARWICK ROSENTHAL,
Honorary Secretary.

*Goulburn.*—Office bearers: Chairman, Dr. R. O. Mills; Vice-Chairman, Dr. F. W. Grutzner; Honorary Secretary and Treasurer, Dr. Brian Schloeffel; Committee, Dr. D. F. Lally and Dr. W. A. Bossence.

The annual general meeting was held at the Mooroopna Base Hospital on September 3, 1947. Thirteen members were present and office bearers were elected. Three films were shown by courtesy of Wyeth Incorporated: (*a*) "Influence of Drugs on the Alimentary Tract", (*b*) "Colles's Fracture", (*c*) "Obstetrical Complications".

A subdivision clinical meeting was held at the Mooroopna Base Hospital on October 15, 1947. Sixteen members were present. Fourteen cases of general medical and surgical interest were shown and brief lectures and discussions on each case presented.

A Branch meeting was held at the Mooroopna Base Hospital and the Grosvenor, Shepparton, on May 15, 1948. Fifty-six members were present. The following was the programme: (*a*) Presidential address: Major-General F. Kingsley Norris. (*b*) Presentation of cases: (i) perforated gall-bladder; (ii) melanoma of leg; (iii) fractured femur; (iv) complicated obstetric case; (v) subarachnoid hæmorrhage; (vi) infantile tuberculosis. (*c*) The Medical Secretary spoke on *The Pharmaceutical Benefits Act*, 1947. (*d*) Social gathering and dinner at which lay representatives of the Shire Council, hospital and Press were present by invitation. (*e*) Address by Dr. A. J. M. Sinclair on "Psychiatry in General Practice".

Wives of visiting members were entertained by the chairman's wife and on Sunday the chairman gave an informal party.

The meeting was considered to be one of the best of its kind ever held and was greatly enjoyed by all.

A Melbourne Permanent Post-Graduate Committee week-end course was held on June 19 and 20 at the Mooroopna Base Hospital and the Grosvenor, Shepparton. Thirty-one members were present. The following was the programme: (*a*) Saturday, June 19: (i) Lecture by Dr. D. R. Leslie, "Surgery of the Stomach". (ii) Lecture by Dr. H. B. Kaye, "The Failing Heart". (*b*) Sunday, June 20: (i) Lecture by Dr. D. F. Lawson, "The Rehabilitation of Midwifery Patients". (ii) Lecture by Dr. V. L. Collins, "Some Recent Advances in Pædiatrics".

Another course arranged by the Melbourne Permanent Post-Graduate Committee will be held at Mooroopna in October.

BRIAN SCHLOEFFEL
Honorary Secretary.

## Reports of Sections.

*Clinical Pathology.*—At the annual general meeting held on December 5, 1947, the following office bearers and committee were elected: Chairman, Dr. R. Watson; Honorary Secretary, Dr. L. Bryce; Committee, Dr. H. Bettinger, Dr. H. Gardner (who also acted as Honorary Treasurer), and Dr. G. Harkness.

General meetings. No general meeting was held in the first quarter of the year owing to the preoccupation of many members of the section with the scientific sessions of the Centenary Meeting of the Royal Melbourne Hospital. On April 30 Dr. D. O. Shiels addressed a meeting of the Section on "Lead Poisoning", at which Dr. K. Fairley and Dr. J. Gowland were invited to open the discussion. On August 6 an extremely well-attended and interesting laboratory demonstration was given at the Pathology Department, Repatriation General Hospital, Heidelberg, under the direction of Dr. R. Maynard. The final general (annual) meeting is to be held on November 26, which Dr. E. North has been invited to address on "'B.C.G.' Vaccine".

Meetings of committee. Four meetings of the committee have been held, at which the chief subjects discussed were the following: (i) Fees for private pathological work—a scale approved by the Branch Council has been drawn up, together with a list of practising pathologists, and it is to be circulated among members of the Branch. (ii) Problems arising in connexion with the implementation of the government regulations concerning the examination of persons exposed to lead risk. (iii) Diploma of Clinical Pathology (post-graduate)—a memorandum expressing views approved by the committee has been drawn up and submitted to the executive of the Faculty of Medicine, University of Melbourne, for its consideration. (iv) Proposed Australian

Association of Clinical Pathologists—the committee approved of this project, suggested by the Section of Pathology of the New South Wales Branch, British Medical Association, and authorized the Honorary Secretary to represent it at the discussions of an informal meeting of pathologists arranged in June in Brisbane. Further action in respect of this project is in progress.

The committee would like to express its gratitude to Professor P. MacCallum for his attendance by invitation to its meetings and for his helpful and sympathetic advice on many occasions. The honorary secretary would also like to thank the staff of the Branch office for much assistance throughout the year.

LUCY M. BRYCE,
Honorary Secretary.

*Radiology.*—At the first meeting for the year in February Dr. Keith Hallam was elected Chairman, Dr. Alan Mackay, Vice-Chairman, Dr. Gwynne Villiers, Secretary, and Dr. Peter Davis, Treasurer.

The section has been very active during the year on both the clinical and the business sides. A number of interesting lectures by radiologists and other specialists have been given.

There has been a considerable increase in the membership of the Section.

GWYNNE VILLIERS,
Honorary Secretary.

*Ophthalmology.*—During the current year the Victorian Branch of the Ophthalmological Society of Australia held four meetings. These were all well attended. The following interesting lectures were given:

1. "Protective Devices for Grinding Machines", by Dr. Eric Gutteridge.
2. "Ocular Prosthesis", by Dr. Dorothy Waugh.
3. "Recent Advances in America", by Dr. T. a'B. Travers.
4. "Epithelioma of the Limbus", by Dr. R. Kaye Scott.

J. McBRIDE WHITE,
Honorary Secretary.

*Ear, Nose and Throat.*—Office bearers: President, Dr. George Swinburne; Honorary Secretary, Dr. Eric Gutteridge; Honorary Treasurer, Dr. Walter Williams. At the present time there are forty-two members of the Section.

Six meetings have been held during the year. Dr. Frank Donovan lectured on "Plastic Surgery of the Nose", Dr. R. S. Hooper gave an address on "Intracranial Abscess following Ear and Nose Infections", and Dr. Charles Sutherland lectured on "Allergy in Respiratory Diseases". A visit was made to the Deaf and Dumb Institution of Victoria.

ERIC GUTTERIDGE,
Honorary Secretary.

## Medical Society of Victoria Library.

During the period under review many members availed themselves of the library services, the total number of visitors being 3296, and books and journals borrowed numbered 2776. One hundred and sixty-four books were added to the library, and thanks are tendered to those members who have made suggestions in this regard and who have assisted in the work of selection. Presentations were made by the following, to whom grateful appreciation is expressed: the Editor, THE MEDICAL JOURNAL OF AUSTRALIA, Dr. J. G. Hayden, Dr. Michael Kelly, Dr. Melville (Queensland), Pharmaceutical Guild of Victoria, Dr. E. A. Richards, and Dr. T. H. Steel. Subscriptions to the following additional journals were arranged during the year: *American Journal of Medicine*, "British Encyclopædia of Medical Practice (Interim Supplements)", *Canadian Journal of Public Health, Ophthalmic Literature, Quarterly Review of Ophthalmology, Quarterly Review of Pædiatrics, Royal Society of Tropical Medicine and Hygiene: Transactions*, "Year Book of Endocrinology, Metabolism and Nutrition", "Year Book of Neurology, Psychiatry and Neurosurgery", "Year Book of Therapeutics". The British Medical Insurance Company of Victoria is thanked for its continued financial assistance to the library funds.

The librarian has completely revised the library holdings, and badly needed space for the above and future additions has been gained by passing on to the university and other interested bodies journals and books no longer of practical value. A large number of duplicate copies of recent journals has also been forwarded to the Chinese Medical Association, which has most gratefully received them. Those members who have assisted in this work of rejection and distribution are thanked.

In an endeavour to make the contents of the library more accessible to country members, it has been decided that if members will mark on the last list of additions to the library the books (up to, say, 20) in which they are interested, these will be forwarded to them from time to time as they become available, the member concerned to pay freight one way. Any practitioners who have mislaid their copy of the additions can obtain another on application. The honorary librarian would also like to draw the attention of country members to the fact that they are entitled to the same service in regard to reference work as those in the city.

The Branch is fortunate in having the services of Miss Erck, who has been specially trained as a librarian, and her value to the members using the library is widely recognized.

DOUGLAS THOMAS,
Honorary Librarian.

On behalf of the Branch Council,

F. KINGSLEY NORRIS, President.
ROY F. WATSON, Honorary Secretary.
C. H. DICKSON, Medical Secretary.

The Council records its appreciation of the work done by the Medical Secretary and the office staff during a particularly busy year.

F. KINGSLEY NORRIS,
President.

## Addendum.

The following reports are published on behalf of:

*1. The Melbourne Permanent Post-Graduate Committee.*

Numbers attending courses were smaller than in other post-war years, due to a decrease in rehabilitation training and an increase in the post-graduate facilities provided by other organizations. The committee arranged a widespread series of courses in country centres, which continue to show an increasing interest in the post-graduate work provided by the committee.

In the annual syllabus the policy was adopted of setting out as much information as possible on the training facilities of the various post-graduate bodies within the State, and this policy will be continued in 1949.

Another of the committee's activities was the organization of the tour of Professor J. C. Spence, M.D., F.R.C.P., Nuffield Professor of Child Health, University of Durham, England, on behalf of the post-graduate committees of all the States. During his two weeks' stay in Melbourne, Professor Spence gave seven major lectures, discussed many problems with the medical staffs of the various teaching hospitals and representatives of the university, and also met members of some of the hospital boards and gave them much helpful advice on administration and hospital design.

Following arrangements made by Major-General Norris while abroad, the committee has been able to assist numerous post-graduates in making arrangements for study overseas, chiefly through the British Post-Graduate Medical Federation.

The position regarding the acquisition of medical films for the use of lecturers is under review.

At the end of April, Major-General F. Kingsley Norris was appointed Director-General of Medical Services, Australian Military Forces, and resigned his position with the committee. Dr. W. W. S. Johnston succeeded as part-time Director of Post-Graduate Studies. Dr. S. F. Reid was appointed acting Assistant Director during the absence of Dr. D. G. Duffy, in conjunction with the other Assistant Director, Dr. P. S. Woodruff.

Early in June the location of the committee was moved to 426, Albert Street, where the British Medical Association has very generously made accommodation available at the far end of their library. For a period of three and a half years the committee occupied rooms in the headquarters of the Royal Australasian College of Surgeons, and owe a deep debt of gratitude to the College for its help in this way.

W. W. S. JOHNSTON,
Director.

*2. The British Medical Insurance Company of Victoria, Limited.*

The annual report of the British Medical Insurance Company of Victoria, Limited, for the year ended April 30, 1948, states that the results of the year's operations as disclosed in the profit and loss account have not, in the opinion of the directors, been materially affected by any items of an abnormal character. The net profit for the year was £2321. During the financial year the company allocated the sum of £420 to the Medical Society of Victoria (£120 for library books, £275 in cash, and £25 for the purpose of retaining a car attendant).

To date the company has given books to the value of £1865 and contributed £9321 in cash to the Medical Society of Victoria, donated £100 to the Melbourne Permanent Post-Graduate Committee and £202 to army hospital units for the purchase of medical books. It has also taken up

debentures of the Medical Society to the value of £3500, upon which it is accepting interest at the rate of only 1% *per annum*, which saves the Medical Society a considerable sum in interest.

The directors felt that members of the British Medical Association would be interested to know of the benefits that they have indirectly received through the activities of this company, and felt sure that the knowledge would strengthen the already solid support given by the profession.

The directors also felt it would be of mutual benefit to the company and to the Victorian Branch of the British Medical Association and the Medical Society of Victoria to have those bodies represented on the Board of the company by appointing their honorary treasurer, Dr. J. A. Cahill, a director, and this was done at the annual meeting.

J. NEWMAN MORRIS,
Chairman of Directors.

*3. The British Medical Agency (Victoria) Proprietary, Limited.*

The directors (Dr. J. A. Cahill, chairman, Dr. C. H. Dickson, Major-General F. K. Norris and Dr. George Robinson) are pleased to report that the Agency had a successful year and, since its reorganization, has handled a steadily increasing volume of business.

Five hundred pounds from the accumulated profits were transferred to the committee of the Medical Society of Victoria with a recommendation that the money be used for the redemption of debentures, and that recommendation was accepted.

The directors express their appreciation of the work carried on by Mr. G. Feely, the secretary and manager of the agency.

On behalf of the directors,
J. A. CAHILL, Chairman.

*4. The Victorian Medical Benevolent Association.*

Since the last report the association has continued its work of assisting infirm doctors and widows of medical practitioners. The committee of the association thanks all those members of the Victorian Branch of the British Medical Association who have contributed to its funds, which have also been augmented by several contributions from medical practitioners in acknowledgement of personal services rendered to them and their families by their colleagues.

EDWARD L. GAULT,
C. H. DICKSON,
Honorary Secretaries.

INSTALLATION OF THE PRESIDENT FOR 1949.

Major-General F. Kingsley Norris introduced the incoming President for 1949, Dr. Douglas Thomas, and installed him in the presidential chair. Dr. Thomas thanked the members for his election.

PRESIDENT'S ADDRESS.

Major-General F. Kingsley Norris then read his retiring president's address (see page 57). Dr. Thomas thanked Major-General Norris for his address.

VOTES OF THANKS.

A vote of thanks to Dr. A. E. Coates, who was retiring from the Council, was carried on the motion of Sir John Morris; and a vote of thanks to the retiring President was carried on the motion of Dr. A. E. Coates.

# Correspondence.

## A NATIONAL HEALTH SERVICE.

SIR: The crux of the dispute between Senator McKenna and the British Medical Association seems to me to be this—Senator McKenna desires the socialization of medicine, and the British Medical Association, supported, I feel, by the majority of the medical profession, whilst desiring an elimination of the disadvantages of the present system, desires to maintain free enterprise and individualism.

These motives have not, to my knowledge, been stated openly by either party, and each is therefore suspicious of the other.

It would be of great assistance in the eventual elimination of the few but very real ills of private practice if, firstly, the respective parties to the dispute laid their cards on the table, and, secondly, if the British Medical Association at this opportune time made a positive approach to the problems of medical practice and prepared a comprehensive scheme for presentation to the Minister.

Yours, etc.,
G. F. SALTER.

10 Chapel Street,
Colac,
Victoria.
December 28, 1948.

## BRITISH AND AMERICAN MEDICINE.

SIR: To an Australian the differences between British and American medicine are startling. (i) The American doctor qualifies with an M.D. degree. There are no higher diplomas for which to study. (ii) Anæsthetics in London are given only by specialists with the diploma of anæsthetics. In America all types of anæsthesia are given by nurses. (iii) Medicine in England is completely socialized. In America if the President wishes to broadcast he has to purchase time from an advertising station. Even telephones, telegraphs, railways, trams and buses are owned by private companies. Naturally there is no socialized medicine.

Yours, etc.,
F. SIMPSON.

New York,
November 5, 1948.

## OVERCROWDING THE MEDICAL PROFESSION IN NEW SOUTH WALES.

SIR: Mr. H. R. G. Poate in THE MEDICAL JOURNAL OF AUSTRALIA of December 18 has by statistical evidence once again drawn attention to the oncoming overcrowding of the profession. This is another challenge to all those who respect our high traditions of medical training and practice.

A few years ago the university and the faculty sought the fair wind of expediency rather than the hard fight for what those who could judge saw to be right. The warning and protest of the Dean of the Faculty were ignored.

Now we have the spectacle of this uncontrolled avalanche of ill-assorted and partially instructed students crashing through the years towards professional status. It is sheer hypocrisy to pretend that the arrangements which have been or ever could be made can in any way lead to their safe instruction. We are, for instance, to see about a hundred students drafted to the Repatriation Hospital at Concord where the clinical field is totally inadequate to training requirements. Imagine a graduate or final year student who has never been in contact with female patients, who has never examined or had pointed out in the daily round a tumour of the breast or a disease of the thyreoid, this apart altogether from gynæcological conditions proper. The fact that such a school is recognized carries with it at least some guarantee that such training will be acceptable on graduation.

After graduation dawns the full tragedy for hundreds of non-instructed, non-experienced penniless graduates who cannot any longer save themselves by the practical training of house jobs. And the worst of it is that the worse they are the less their chance of this redemption.

There can be only two ends to it. One is the toxic infusion into the community of ignorant untrained doctors, who are likely to be hungry. Hungry doctors are a grave menace to professional ethics and to the well-being of the people among whom they practise. The other pathetic alternative is that an awful awakening will make some seek other employment in which they would not carry such heavy responsibilities for which they are not schooled.

From the very secondary political angle, of course, this overcrowding of the profession surely spells an obvious menace to our standards and the cohesion with which we hope to fight for them.

Can we yet do anything about it?

There is only one rearguard left to fight an action, and that is the clinical teachers. If this body were to take a strong stand and limit their classes to numbers recognized as the maximum to whom sound instruction may be given, then something could happen to arrest the flood. It is my view that it is our very imperative duty to our profession, to the public and to the unfortunate students themselves to organize to this end.

From the students' point of view it would be kinder to be turned back into the desert at the end of third year than

be allowed to continue the woeful journey, and in the end find themselves delivered from the bondage of their tutorial chaos, but with no hope of the promised land.

Yours, etc.,

185 Macquarie Street, Sydney,
December 30, 1948.

DOUGLAS MILLER.

# Post-Graduate Work.

## THE POST-GRADUATE COMMITTEE IN MEDICINE IN THE UNIVERSITY OF SYDNEY.

### Course of Lectures in Hæmatology.

THE Post-Graduate Committee in Medicine in the University of Sydney announces that Professor L. S. P. Davidson, B.A., M.D., F.R.C.P., professor of medicine in the University of Edinburgh and a leading authority on diseases of the blood, will conduct a series of lectures in hæmatology during the week beginning February 14, 1949. Lectures will be held in the Stawell Memorial Hall, 145 Macquarie Street, Sydney, as follows:

Monday, February 14: 4.15 p.m., "The Iron Deficiency Anæmias"; 8 p.m., "The Megaloblastic Anæmias".

Wednesday, February 16: 4.15 p.m., "The Sprue Syndrome"; 8 p.m., "The Hæmorrhagic Diathesis with Special Reference to Idiopathic Thrombocytopenic Purpura".

Friday, February 18: 4.15 p.m., "The Syndrome of Portal Hypertension"; 8 p.m., "Splenectomy: Indications and Clinical and Hæmatological Effects".

Fee for attendance at the above lectures will be £3 3s., but arrangements may be made to attend individual lectures. Admission will be by ticket only, and those desirous of attending are requested to communicate with the Secretary of the Committee, 131 Macquarie Street, Sydney, as soon as possible. Telephones: BW 7483-BU 5238.

### Film Evening.

The Post-Graduate Committee in Medicine in the University of Sydney announces that the following films will be shown at 8 p.m. on Friday, January 28, 1949, at the Stawell Memorial Hall of the Royal Australasian College of Physicians, 145 Macquarie Street, Sydney: "Treatment of Breech Presentation", "Post-Partum Hæmorrhage". All members of the profession are invited to attend, and further inquiries should be made by communicating with the Secretary of the Post-Graduate Committee in Medicine, 131 Macquarie Street, Sydney. Telephone: BW 7483-BU 5238.

# Obituary.

## ROBERT HENRY STRONG.

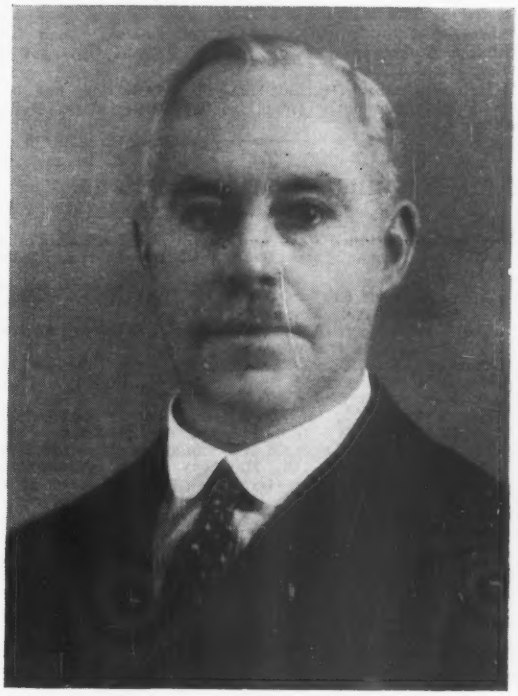
THE late Robert Henry Strong was one of a large family, his father being Alderman William Strong, later Mayor of Melbourne. He was educated at Carlton College, where he was a good student and excelled at sport, especially cricket. At the university he did an excellent course, qualifying in medicine in 1893, and was appointed to a resident position at the Melbourne Hospital. At the termination of this appointment he went to London and studied at King's College Hospital and at the Pasteur Institute. He obtained his D.P.H. Cambridge and M.R.C.S. England. On his return to Melbourne, Robert Strong was appointed physician to the out-patient department of the Melbourne Hospital in 1902, and in 1920 he became physician to in-patients and clinical lecturer in medicine. He was beloved by his patients, both hospital and private, and was most kind and sympathetic to them. He was a painstaking man and his consultations were always prolonged and thorough, giving confidence to the patient. At the outbreak of the First World War, Strong went to England and joined the Royal Army Medical Corps as a captain. He served at Gallipoli and in the Middle East. Later, he was appointed colonel and consulting physician to the 21st General Hospital.

He was devoted to cricket, and several times accompanied the Australian test team to England. He also visited the various capital cities to watch test matches. He was a member of the Government House team which played against teams for the law, the army and medical men. The theatre and the opera were among his greatest interests and he was physician to the J. C. Williamson Company for many years.

In later years Robert Strong became interested in gardening at his country home at Ferny Creek. His week-ends were devoted to this hobby and he treated his flowers and shrubs with the same care and attention he gave to his patients. He also excelled in carpentry and made many useful and ornamental structures for the home.

He was a voracious reader, and if lunching by himself, always had the latest medical journal in front of him.

Dr. Walter Summons writes: Dr. R. H. Strong ("Bob" to most of us) was a man of great personal charm. Well dressed, good looking and debonair, it was always a pleasure to be in his company. To his students he was an example in his kindly treatment of his patients. Particularly helpful were his exhaustive talks on therapeutics. In his time at the Melbourne Hospital his lectures shed some light on the more or less confused state of knowledge of the action of the drugs in the hospital pharmacopœia.



Bob was a first-class sportsman, excelling chiefly at cricket, so much so that in the late Mr. W. Moore's team of medical cricketers he was the opening bat and also was the backbone of the bowling. This was, of course, in the happy early days of the present century.

During World War I he served with distinction in the Royal Army Medical Corps, holding first the post of specialist physician to the 27th General Hospital at Mudros. Then after the Gallipoli evacuation he served in Egypt in charge of the medical section of the 21st General Hospital at Alexandria till he was appointed commanding officer of the hospital at Ras-el-Tin. Later he became consultant physician for the Egyptian Expeditionary Forces. For his services he was mentioned twice in dispatches and awarded in 1918 the decoration of O.B.E.

After the war he resumed his medical practice in Melbourne, with several breaks to permit of world travel. His genial and happy disposition endured to the end, and with the added attraction that his wide experience of men and medicine had brought him he was a most versatile and entertaining companion. His patients loved him and we will remember him with affection and pride. In his later years his greatest joy was to escape to the hills to his garden at Ferny Creek. Even when the dread news of grave illness was known to him he carried on actively and unflinchingly. His widow has the deep sympathy of his confrères.

### FREDERICK MORETON.

WE regret to announce the death of Dr. Frederick Moreton, which occurred on December 22, 1948, at Geelong, Victoria.

### ALFRED EDGAR CULLEN.

WE regret to announce the death of Dr. Alfred Edgar Cullen, which occurred on December 24, 1948, at Perth.

## Honours.

### NEW YEAR HONOURS.

THE following are included among the New Year Honours awarded by His Majesty the King.

Professor John Burton Cleland, of Adelaide, has been created a Commander of the Most Excellent Order of the British Empire.

Dr. Ernest Albert Harold Russell, of Adelaide, has been created an Officer of the Most Excellent Order of the British Empire.

## Nominations and Elections.

THE undermentioned have applied for election as members of the New South Wales Branch of the British Medical Association:

Beirman, Basil Nathan, M.B., B.S., 1948 (Univ. Sydney), 9 Roe Street, Bondi North.
Lyall, John Angus, M.B., 1947 (Univ. Sydney), Adelong, New South Wales.
Stuckey, Gordon Clarence, M.B., B.S., 1948 (Univ. Sydney), Maitland District Hospital, West Maitland, New South Wales.
Hanks, Thomas James, M.B., B.S., 1948 (Univ. Sydney), Royal Prince Alfred Hospital, Camperdown.
Tully, John Kitching, provisional registration, 1948 (Univ. Sydney), 191 Mowbray Road, Willoughby.
Burke, William John Gerard, M.B., B.S., 1946 (Univ. Sydney), St. Vincent's Hospital, Darlinghurst.

## Naval, Military and Air Force.

### APPOINTMENTS.

THE undermentioned appointments, changes *et cetera* have been promulgated in the *Commonwealth of Australia Gazette*, Number 165, of December 16, 1948.

#### CITIZEN NAVAL FORCES OF THE COMMONWEALTH.

*Royal Australian Naval Reserve.*

*Termination of Appointment.*—The appointment of Peter Dudley Blaxland as Surgeon Lieutenant be terminated, dated 2nd August, 1948.

*Royal Australian Naval Volunteer Reserve.*

*Promotion.*—Acting Surgeon Lieutenant-Commander Douglas Lockhart Barnes Fearon be promoted to the rank of Surgeon Lieutenant-Commander, dated 5th October, 1948.

#### ROYAL AUSTRALIAN AIR FORCE.

*Permanent Air Force: Medical Branch.*

John Frederick Marrington (267845) is appointed to a short service commission on probation for a period of twelve months, with the rank of Flight Lieutenant, 1st November, 1948.

*Citizen Air Force: Medical Branch.*

The appointments of the following Temporary Squadron Leaders are terminated on demobilization: G. D. Charters (257499), 18th October, 1948, L. Kowadlo (257662), 28th October, 1948.

*Reserve: Medical Branch.*

Ex-Flight Lieutenant Wilfred Roy McKenna (277093) is appointed to a commission with the rank of Flight Lieutenant, 21st July, 1948.

## Diary for the Month.

JAN. 17.—Victorian Branch, B.M.A.: Finance, House and Library Subcommittee.
JAN. 18.—New South Wales Branch, B.M.A.: Medical Politics Committee.
JAN. 20.—Victorian Branch, B.M.A.: Executive Meeting.
JAN. 26.—Victorian Branch, B.M.A.: Council Meeting.
JAN. 28.—Queensland Branch, B.M.A.: Council Meeting.
FEB. 1.—New South Wales Branch, B.M.A.: Organization and Science Committee (with representatives of Special Groups).
FEB. 2.—Western Australian Branch, B.M.A.: Council Meeting.
FEB. 2.—Victorian Branch, B.M.A.: Branch Meeting.

## Medical Appointments: Important Notice.

MEDICAL PRACTITIONERS are requested not to apply for any appointment mentioned below without having first communicated with the Honorary Secretary of the Branch concerned, or with the Medical Secretary of the British Medical Association, Tavistock Square, London, W.C.1.

*New South Wales Branch* (Honorary Secretary, 135, Macquarie Street, Sydney): Australian Natives' Association; Ashfield and District United Friendly Societies' Dispensary; Balmain United Friendly Societies' Dispensary; Leichhardt and Petersham United Friendly Societies' Dispensary; Manchester Unity Medical and Dispensing Institute, Oxford Street, Sydney; North Sydney Friendly Societies' Dispensary Limited; People's Prudential Assurance Company Limited; Phœnix Mutual Provident Society.

*Victorian Branch* (Honorary Secretary, Medical Society Hall, East Melbourne): Associated Medical Services Limited; all Institutes or Medical Dispensaries; Australian Prudential Association, Proprietary, Limited; Federal Mutual Medical Benefit Society; Mutual National Provident Club; National Provident Association; Hospital or other appointments outside Victoria.

*Queensland Branch* (Honorary Secretary, B.M.A. House, 225, Wickham Terrace, Brisbane, B.17): Brisbane Associated Friendly Societies' Medical Institute; Bundaberg Medical Institute; Brisbane City Council (Medical Officer of Health). Members accepting LODGE appointments and those desiring to accept appointments to any COUNTRY HOSPITAL or position outside Australia are advised, in their own interests, to submit a copy of their Agreement to the Council before signing.

*South Australian Branch* (Honorary Secretary, 178, North Terrace, Adelaide): All Lodge appointments in South Australia; all Contract Practice appointments in South Australia.

*Western Australian Branch* (Honorary Secretary, 205, Saint George's Terrace, Perth): Wiluna Hospital; all Contract Practice appointments in Western Australia. All government appointments with the exception of those of the Department of Public Health.

## Editorial Notices.

MANUSCRIPTS forwarded to the office of this journal cannot under any circumstances be returned. Original articles forwarded for publication are understood to be offered to THE MEDICAL JOURNAL OF AUSTRALIA alone, unless the contrary be stated.

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